

Service Manual

Model UM500

**AM/FM Radio & Double Cassette
with 3CD Player**

CONTENTS

| | | |
|-------------------------------|-------|-------------------|
| <i>ALIGNMENT PROCEDURES</i> | ----- | <i>P. 1 - 5</i> |
| <i>PCB LAYOUTS</i> | ----- | <i>P. 6 - 21</i> |
| <i>WIRING DIAGRAMS</i> | ----- | <i>P. 22 - 23</i> |
| <i>SCHEMATIC DIAGRAMS</i> | ----- | <i>P. 24 - 25</i> |
| <i>EXPLODED VIEW DIAGRAMS</i> | ----- | <i>P. 26 - 29</i> |
| <i>REPLACEMENT PARTS LIST</i> | ----- | <i>P. 30 - 62</i> |

ALIGNMENT

LIST OF TEST EQUIPMENT

- AC millivoltmeter (VTVM) (above 100 kohm/V)
- Digital AM/FM signal generator
- IF sweep generator
- Oscilloscope
- Digital voltmeter
- Wow & Flutter meter
- Frequency counter

GENERAL PREPARATION

1. Check the source voltage.
2. Set the bandswitch to the being aligned.
3. Disconnect the FM telescopic antenna.
4. Keep the signal input as low as possible to aviod AGC action.
5. Standard modulation is 1000Hz 30% for AM.
6. Standard modulation is 1000Hz 22.5kHz deviation for FM.
7. Connect the signal generator between TP and GND.

ALIGNMENT PROCEDURE

FM SECTION

Modulation: 1000Hz / 22.5kHz dev. Input voltage: AC 120V Output impedance: 4 ohms

| Step | Alignment Frequency | Test Equipment | Signal In | Signal Out | Alignment | Remark |
|------|----------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------|------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 1 | 10.7MHz | 1. FM sweep marker scope 2. Power supply | TP2 (Through cer. cap. 1000pF) | TP4 | Adjust T101 T104 for maximum curve output. | 1. Push On switch to ON. 2. Select FM Band. 3. Volume at minimum position. 4. Press memory 5 key |
| 2 | 108MHz | 1. DVM | | TP7 | Adjust L103 until the VTVM reading is 8V. | 1. Volume at minimum position. 2. Press memory 5 key |
| 3 | 90MHz | 1. FM signal generator 2. Power supply 3. VTVM 4. Oscilloscope | | Speaker | Adjust L107 for maximum output | Press memory 2 key |
| 4 | 106MHz | Same as step 3 | | Speaker | Adjust TC101 for maximum output | Press memory 4 key |
| 5 | Repeat Steps 3 and 4 until no further improvement can be made. | | | | | |

AM SECTION

Modulation: 1000Hz 30%

input voltage: AC 120V

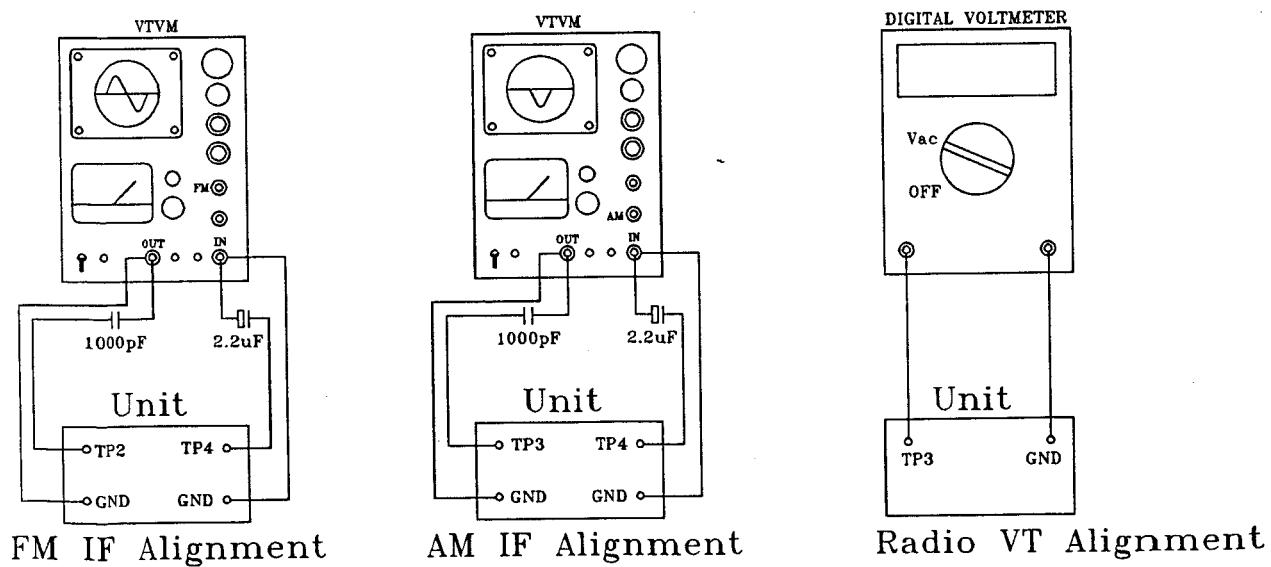
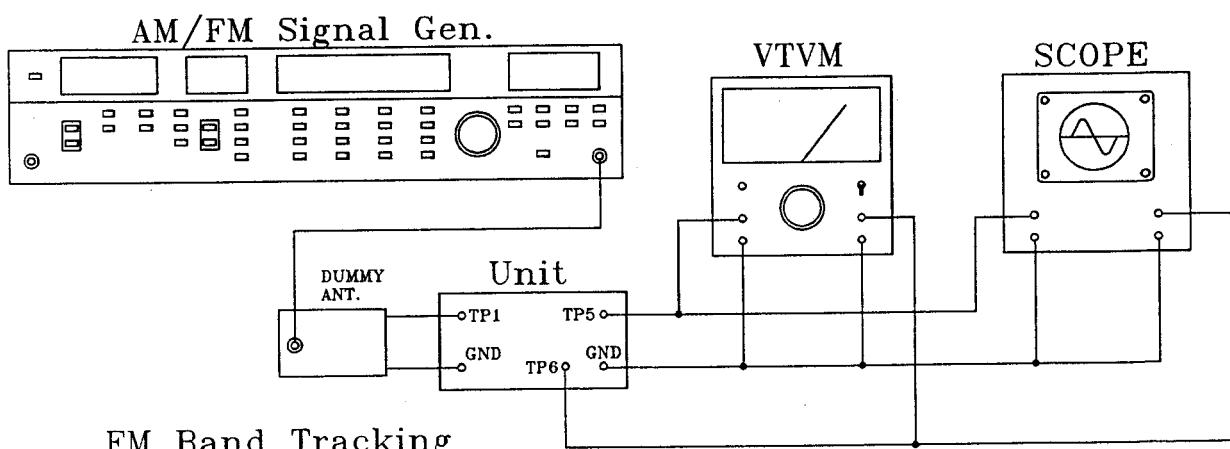
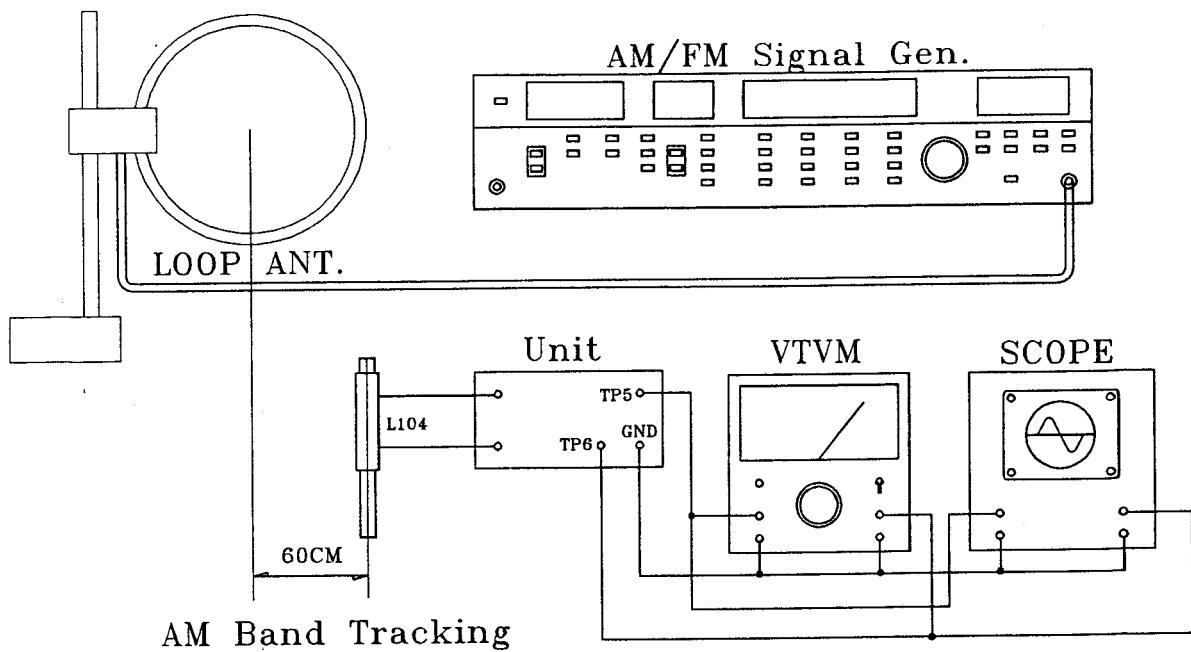
Output impedance: 4 ohms

| Step | Alignment Frequency | Test Equipment | Signal In | Signal Out | Alignment | Remark |
|------|----------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------|------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 1 | 450kHz | 1. AM sweep marker scope 2. Power supply | TP3 (Through cer. cap. 1000pF) | TP4 | Adjust T102 for maximum output. | 1. Push On switch to ON. 2. Select AM Band. 3. Volume at minimum position. 4. Press memory 5 key |
| 2 | 1710kHz | 1. DVM | | TP7 | Adjust T103 until the DVM reading is 8V. | 1. Volume at minimum position. 2. Press memory 5 key |
| 3 | 600kHz | 1. FM signal generator 2. Power supply 3. VTVM 4. Oscilloscope | | Speaker | Adjust L104 for maximum output | Press memory 2 key |
| 4 | 1400kHz | Same as step 3 | | Speaker | Adjust TC102 for maximum output | Press memory 4 key |
| 5 | Repeat Steps 3 and 4 until no further improvement can be made. | | | | | |

CASS. SECTION

Input voltage: AC 120V Output impedance: 8 ohms

| Step | Alignment Frequency | Test Equipment | Test tape | Signal Out | Alignment | Remark |
|------|---------------------|-------------------------------------------------------------------------|-----------|-----------------------------------------|---------------------------------------------------------------------------------------------|-----------------------|
| 1 | 3000Hz | 1. Power supply 2. VTVM 3. Wow & Flutter meter 4. Oscilloscope | MTT-111N | Speaker | Adjust R349 until the reading of Wow & Flutter is 3000Hz +/-20Hz | Deck A and Deck B |
| 2 | 6300Hz | 1. Power supply 2. VTVM 3. Oscilloscope | MTT-113N | Speaker | Adjust the head azimuth by rotating the azimuth adjusting screw for maximum output. | Deck A and Deck B |
| 3 | 80kHz | 1. Power supply 2. Frequency counter 3. VTVM | | Recording bias output point and ground. | Adjust T301 until the reading of Freq. counter is 80kHz +/-3kHz and VTVM reads 10Vac +/-1V. | Push down REC. switch |



CD ADJUSTMENT PROCEDURE

THE FOLLOWING STEPS SHOULD PERFORMED BEFORE ADJUSTMENT PROCEDURE.

- a. REMOVE THE TURNTABLE BY SLIDING THE GUIDE PLATE OUTWARD. (FIG. 1)
- b. DISASSEMBLE THE BASE COVER BY REMOVED 2 SCREWS.

CAUTION:

LASER BEAM MAY ALWAYS ACTIVE WHEN THE TURNTABLE REMOVED.
USE OF CONTROLS FOR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE
SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT
PROPERLY QUALIFIED SERVICE PERSONNEL.

1. VCO ADJUSTMENT

- a. CN07 CONNECTED TO POWER SUPPLY, CD TEST DISC SONY YEDS-18 POSITION TO
PLAYER AND FASTENED BY MAGNETIC HOLDER. (FIG. 1)
- b. POWER ON & CD ON, PUSH S06 SWITCH IN STOP MODE.
- c. VCO TEST PIN TO CN14, AND ADJUST VR05 LET COUNTER READING AS 4.35MH
 \pm 10KHz. (FIG.6)& (FIG.2)
- d. DISCONNECTED THE TEST PIN AFTER ABOVE PROCEDURE.

2. RF ADJUSTMENT

- a. RF TEST PIN CONNECTED TO CN14, CD IN PLAY MODE. (FIG. 3)
- b. ADJUST VR02, LET THE WAVEFORM TO MAXIMUM. (FIG. 4) & (FIG. 6)

3. TRACK OFF-SET ADJUSTMENT

- a. TRACK OFF-SET TEST PIN CONNECTED TO CN08. (FIG. 6)
- b. ADJUST VR01, LET THE WAVEFORM SHOWN AS A1=A2. (FIG. 5) & (FIG. 6)

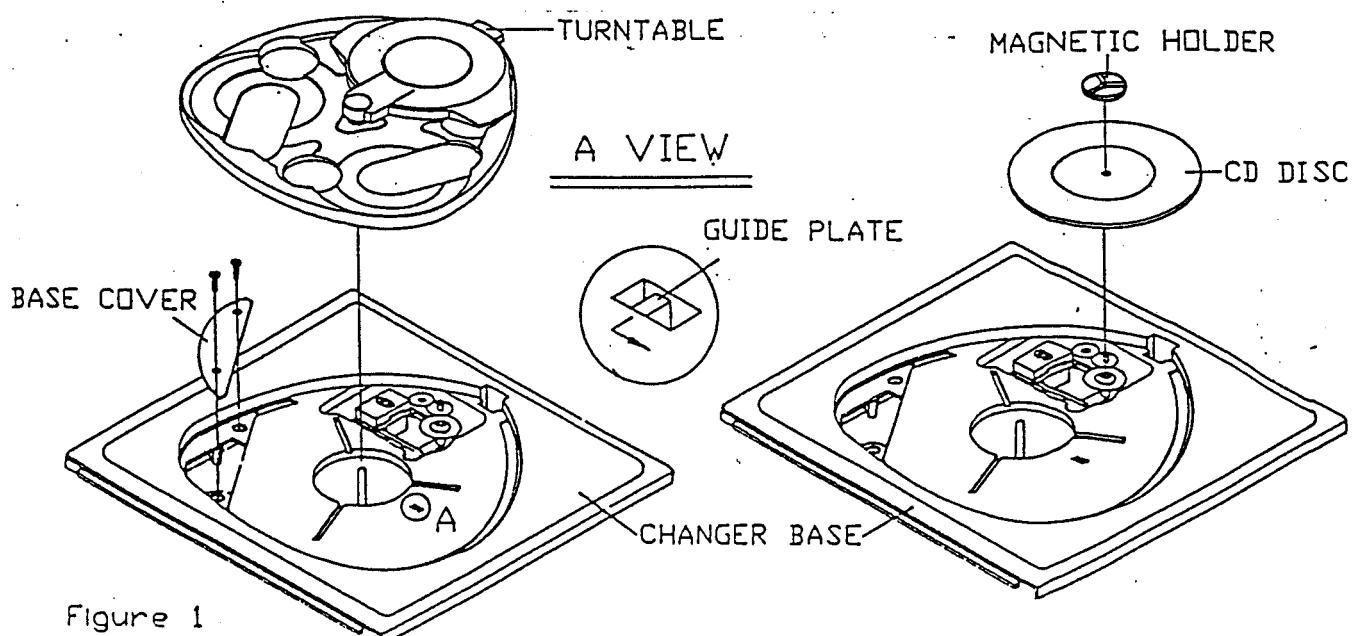
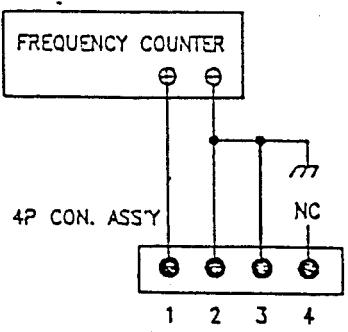


Figure 1



NOTE: VCO TEST EFM TO GND.
TRACK OFF SET TEST
CN008 PIN2 TO GND.

Figure 2

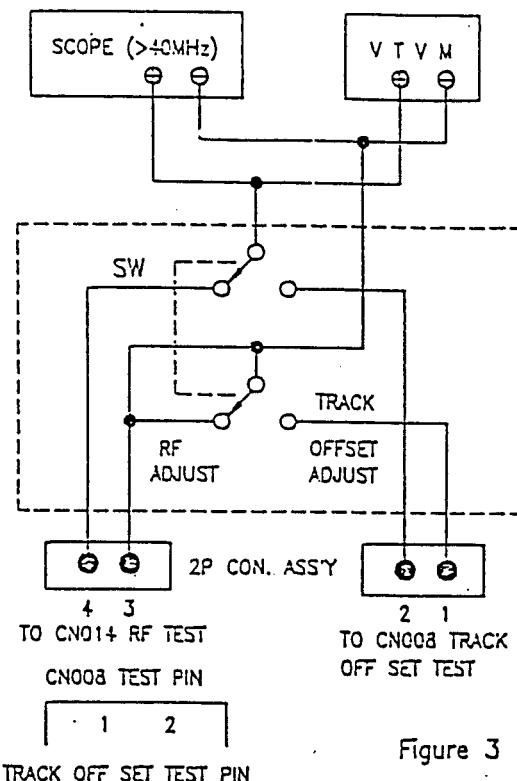


Figure 3

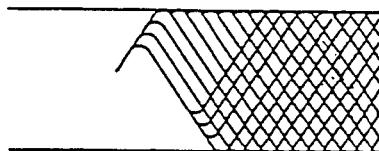


Figure 4

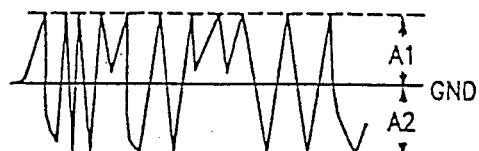
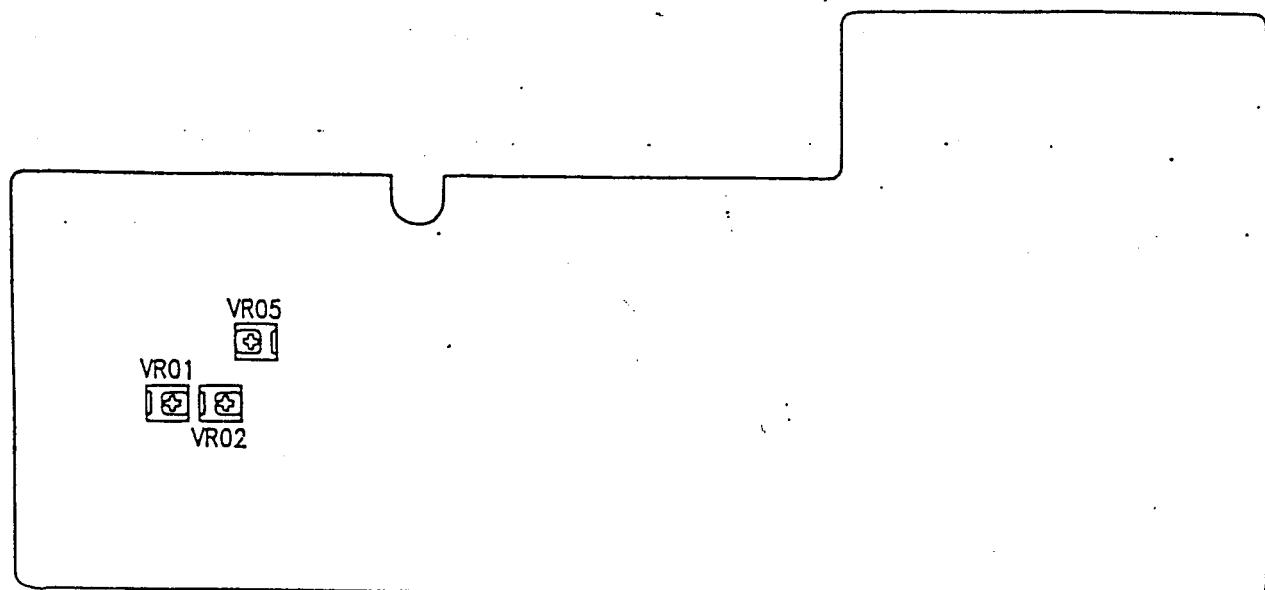
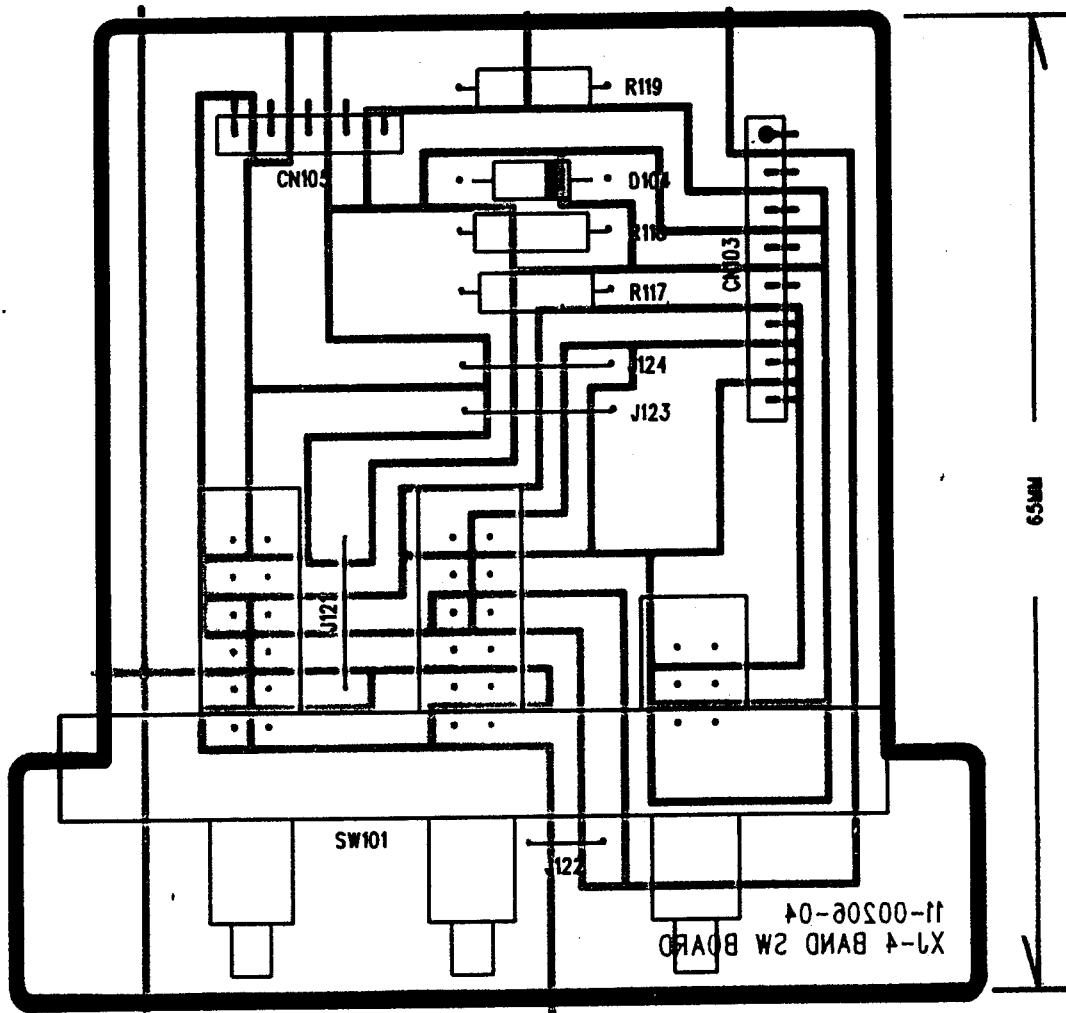


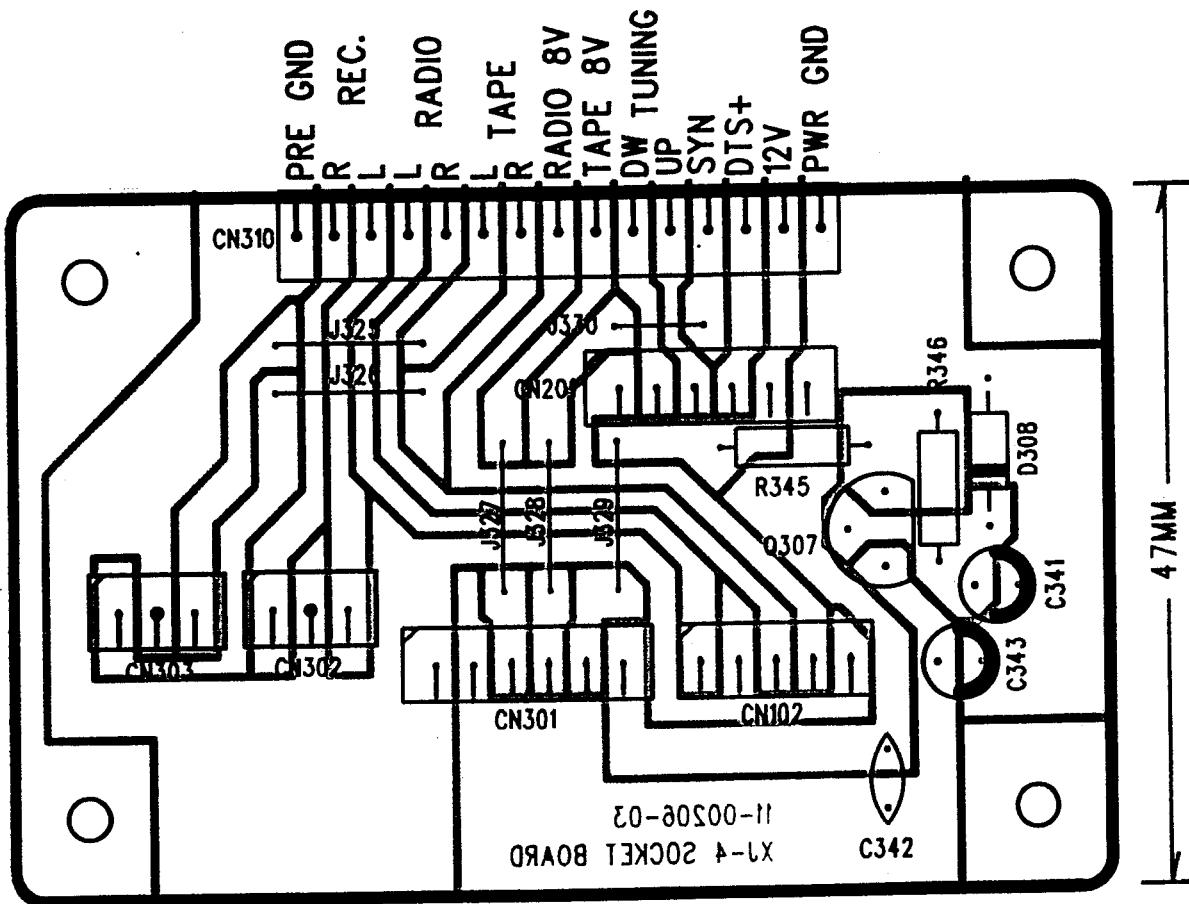
Figure 5

ADJUSTMENT LOCATIONS





MODEL:XJ-4 BAND SW BOARD
SCALE:2:1
COMPONENT SIDE
REV:00
MATERIAL:94HB UL 1.6MM THK
NEGATIVE LAYOUT IS SHOWN
004.DWG



MODEL:XJ-4 SOCKET BOARD

SCALE:2:1

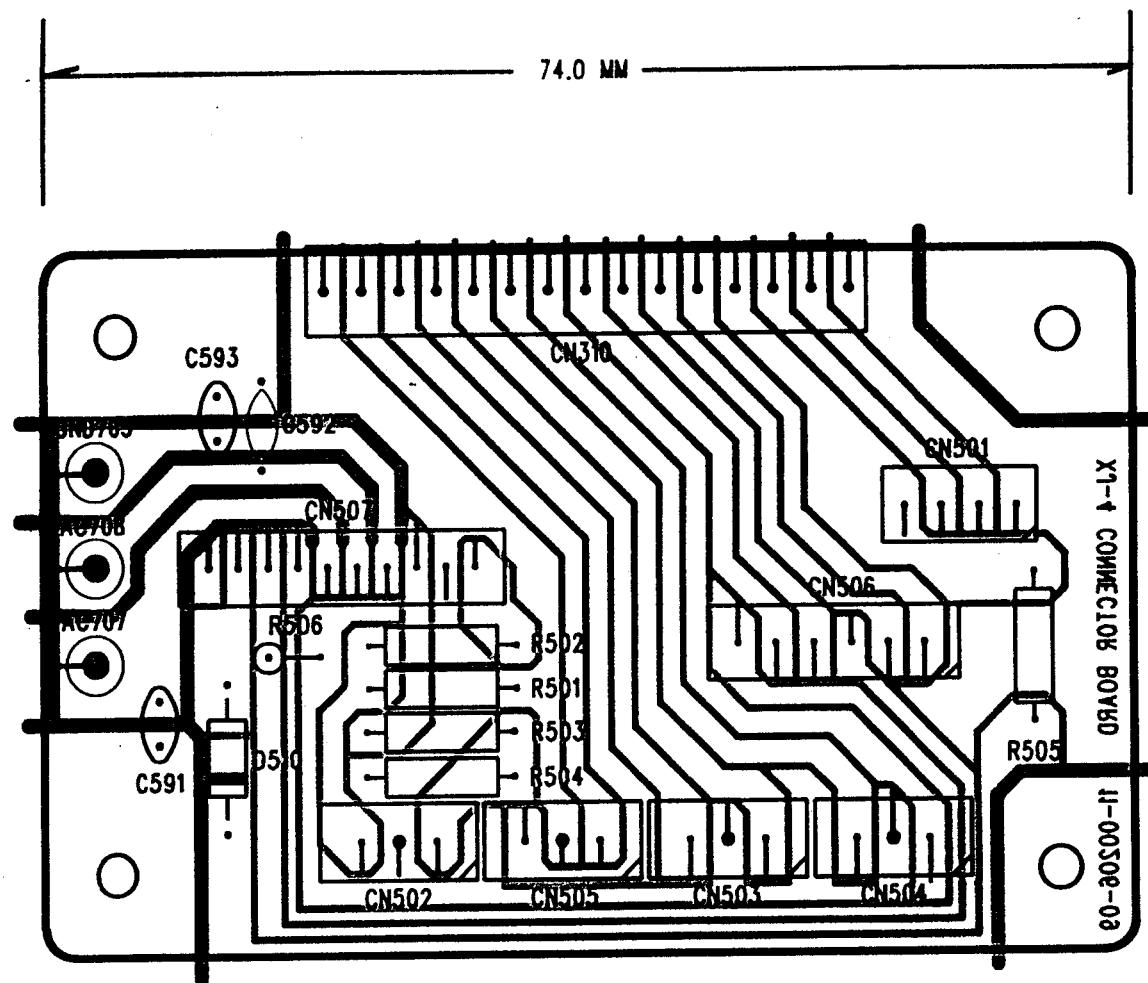
COMPONENT SIDE

NEGATIVE LAYOUT IS SHOWN

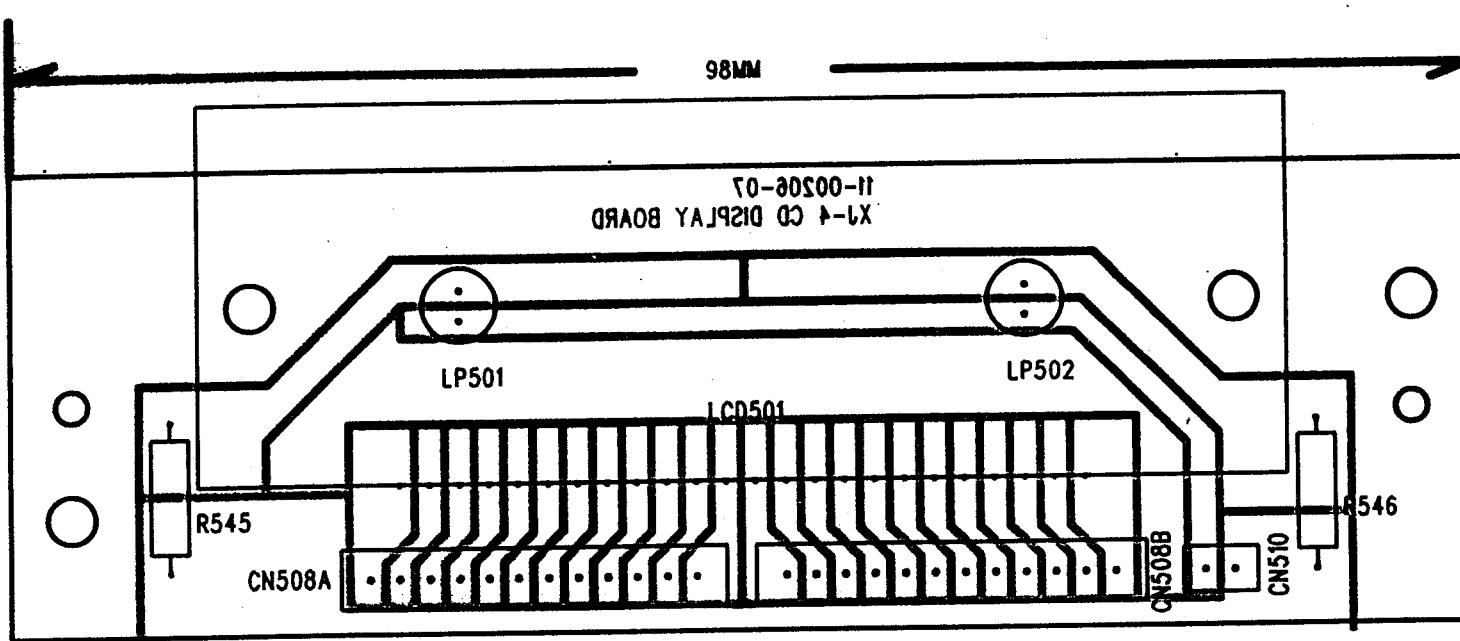
MATERIAL:94HB UL 1.6MM THK

REV:00

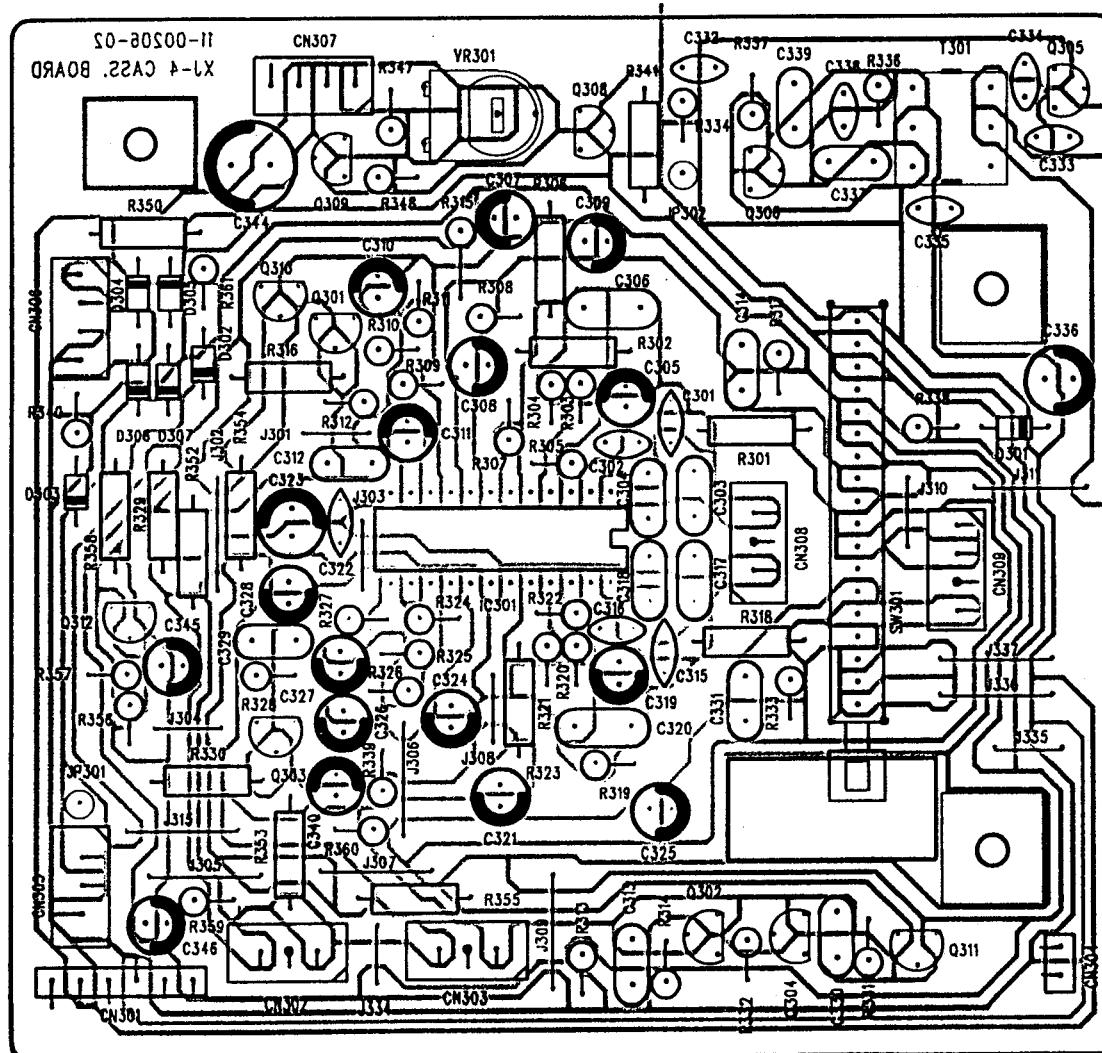
003.DWG



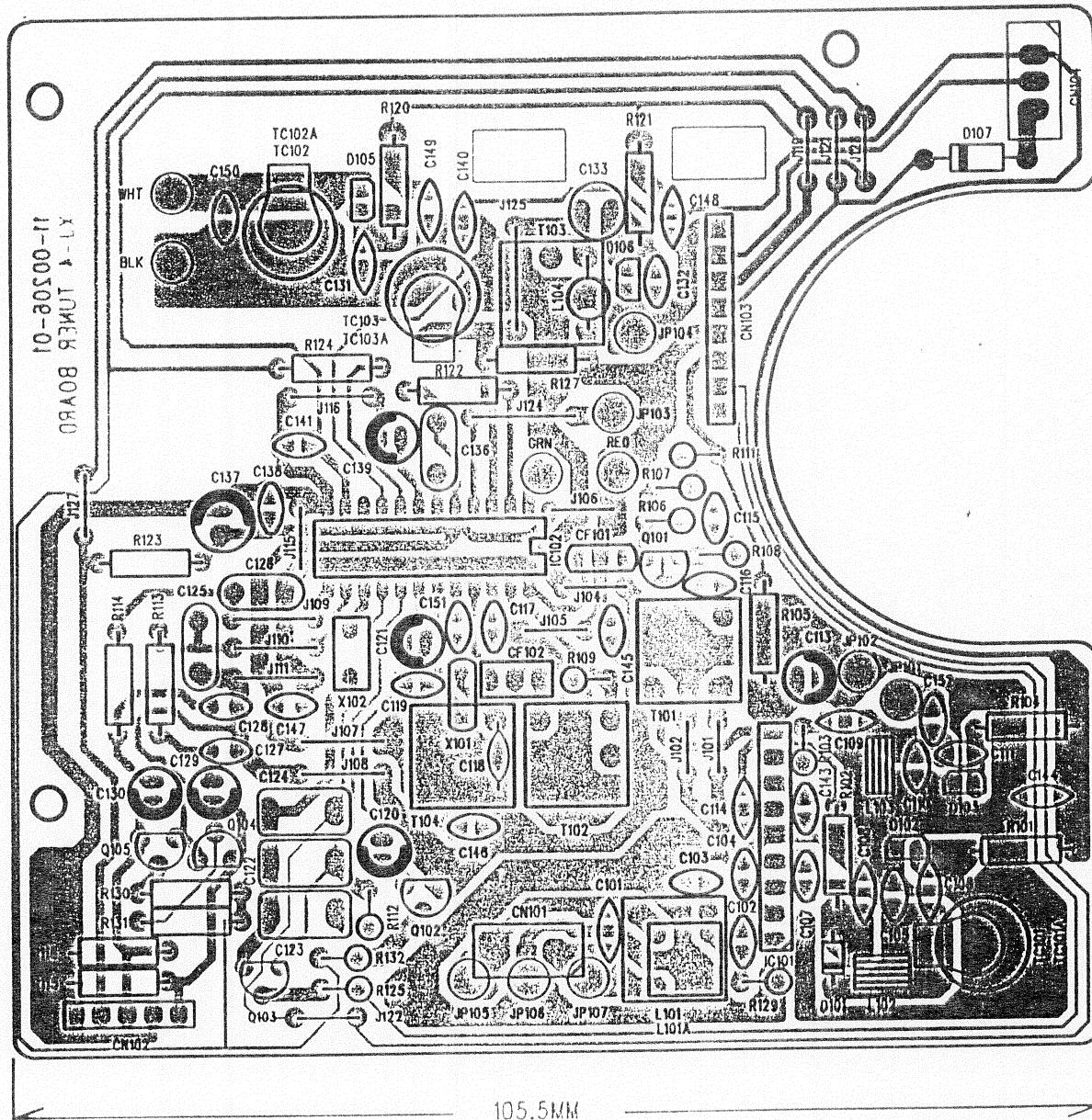
MODEL:XJ-4 CONNECTOR BOARD
COMPONENT SIDE
NEGATIVE LAYOUT IS SHOWN
MATERIAL:UL94HB 1.6MM THK
SCALE:2:1
REV:00



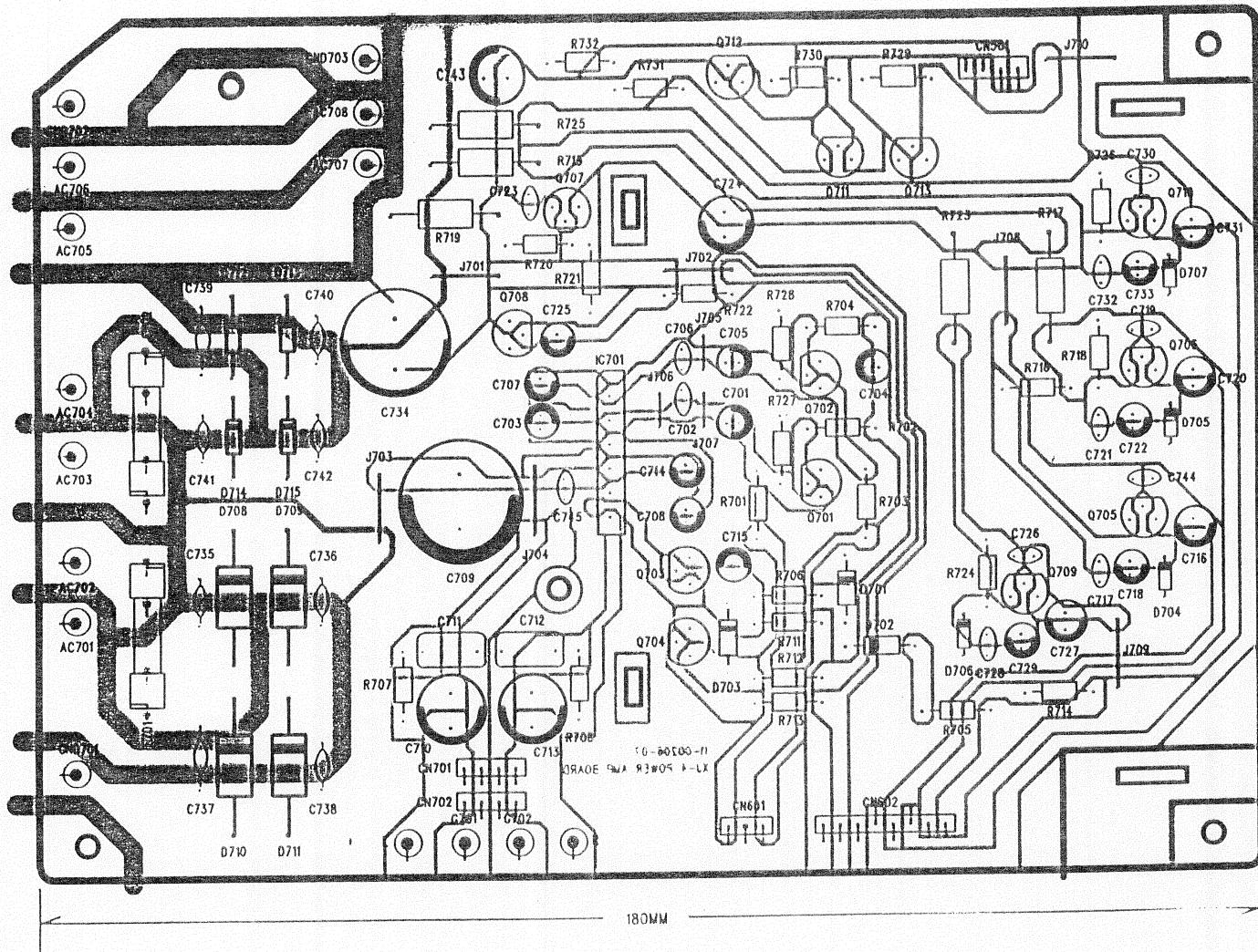
MODEL:XJ-4 CD DISPLAY BOARD
COMPONENT SIDE
NEGATIVE LAYOUT IS SHOWN
MATERIAL:UL94HB 1.6MMTHK
SCALE:2:1
REV:00
009.DWG



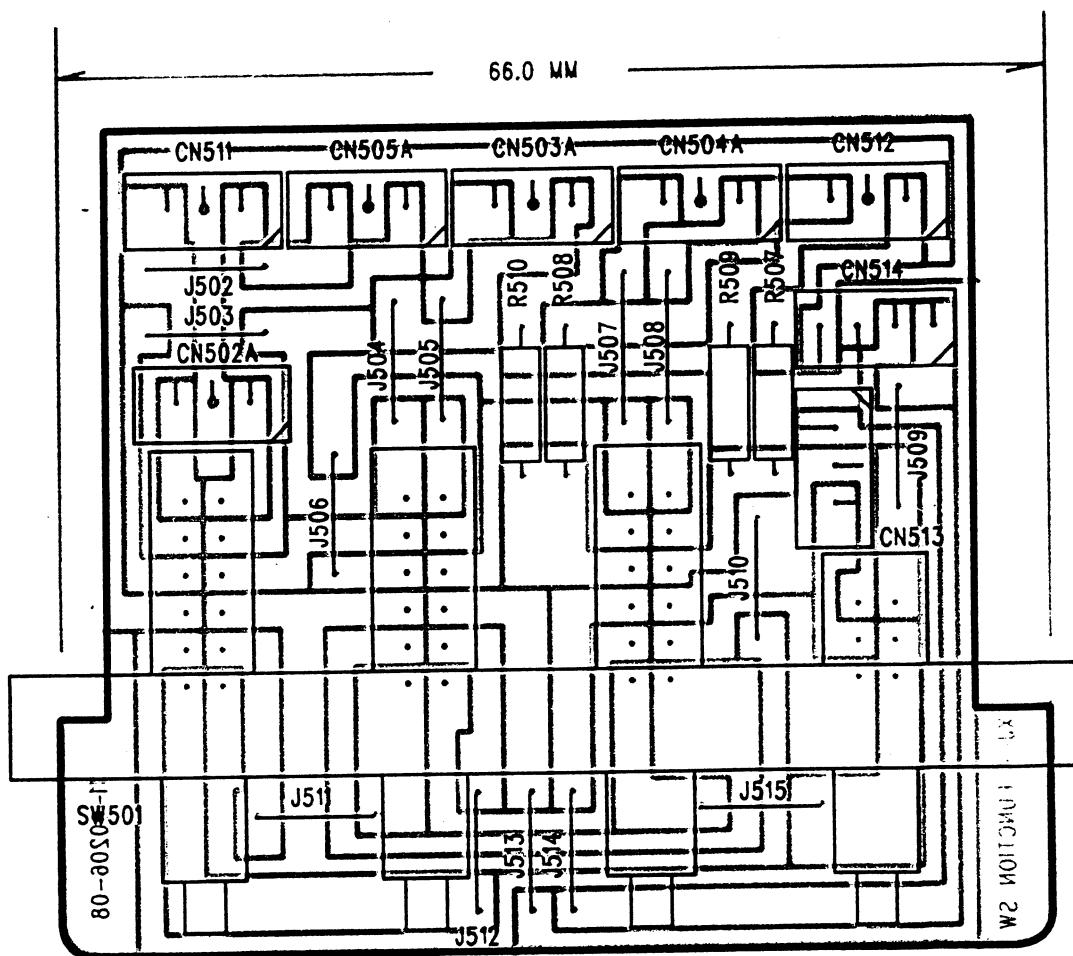
10-30200-11
ORAOB 80848
REHMUT A-LX



MODEL:XJ-4 TUNER BOARD
COMPONENT SIDE
SCALE: 2:1
REV: 00
MATERIAL:94HB 1.6MM THK
001.DWG

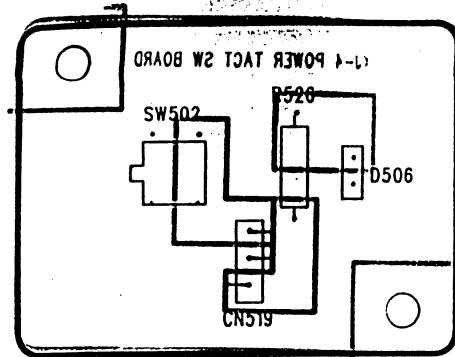


MODEL:XJ-4 POWER AMP BOARD
COMPONENT SIDE
NEGATIVE LAYOUT IS SHOWN
SCALE:2:1
MATERIAL:UL94VO 1.6MM THK
REV:00
006.DWG

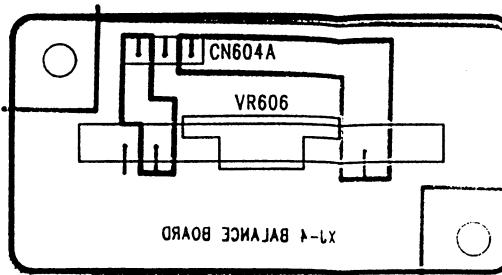


MODEL:XJ-4 FUNCTION SW BOARD

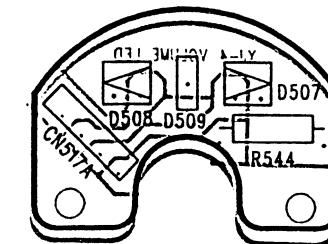
ORIENT POWER ELEC
COMPONENT SIDE
NEGATIVE LAYOUT IS
MATERIAL:UL94HB 1.6
SCALE:2:1
REV:00
010.DWG



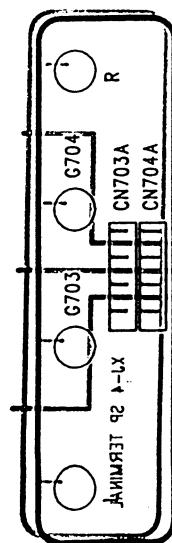
POWER TACT SWITCH BOARD
UL94HB 1.6MM THK



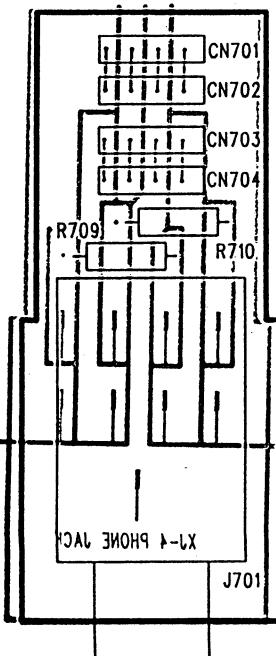
BALANCE BOARD
UL94HB 1.6MM THK



VOLUME LED BOARD
UL94HB 1.6MM THK

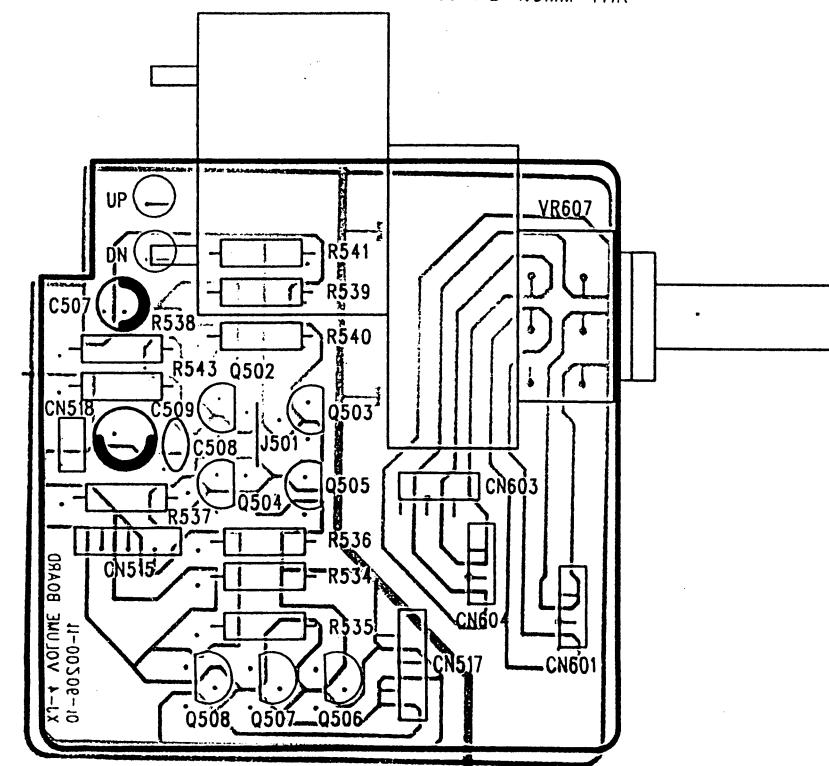


SP TERMINAL BOARD
UL94VO 1.6MM THK.

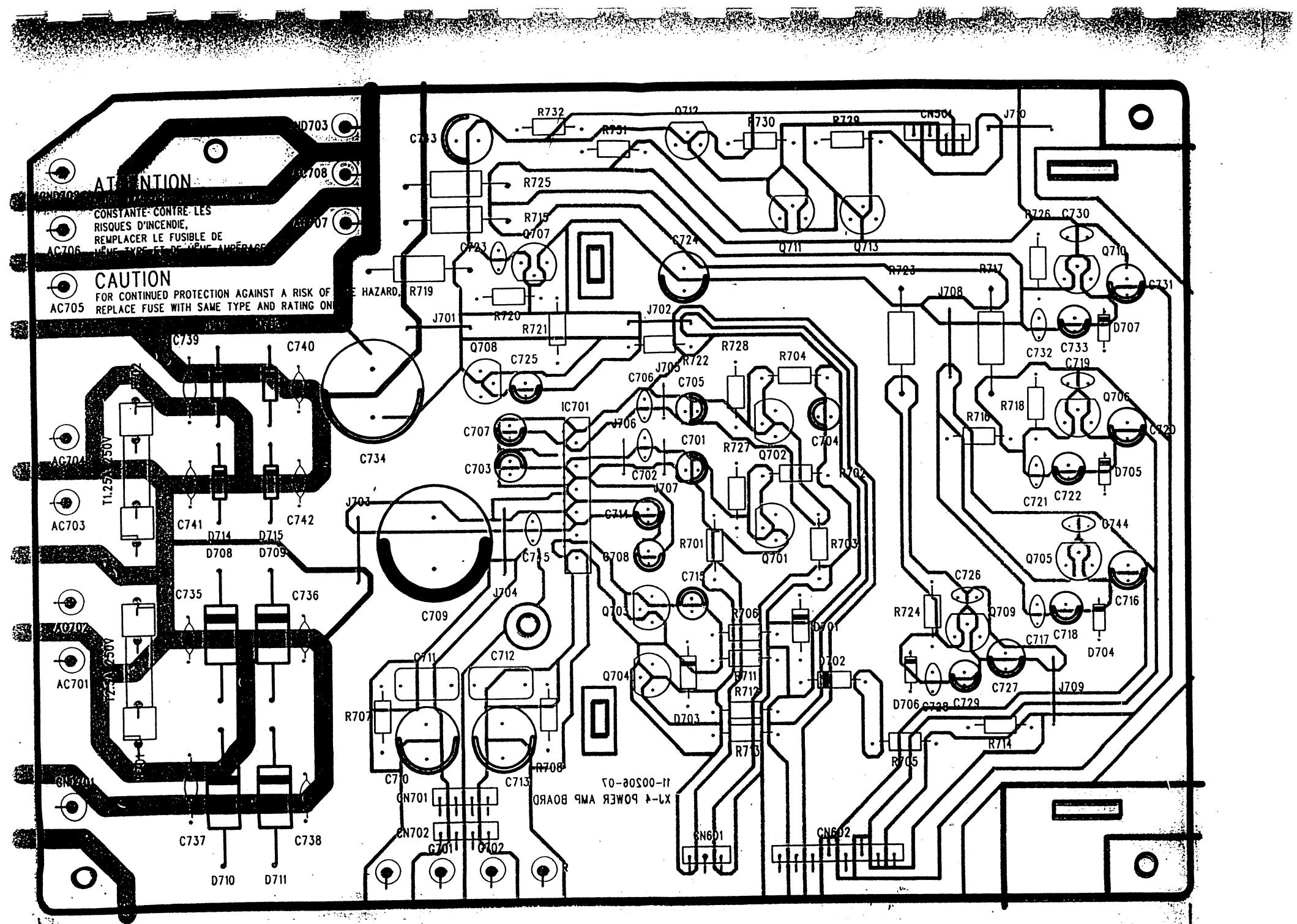


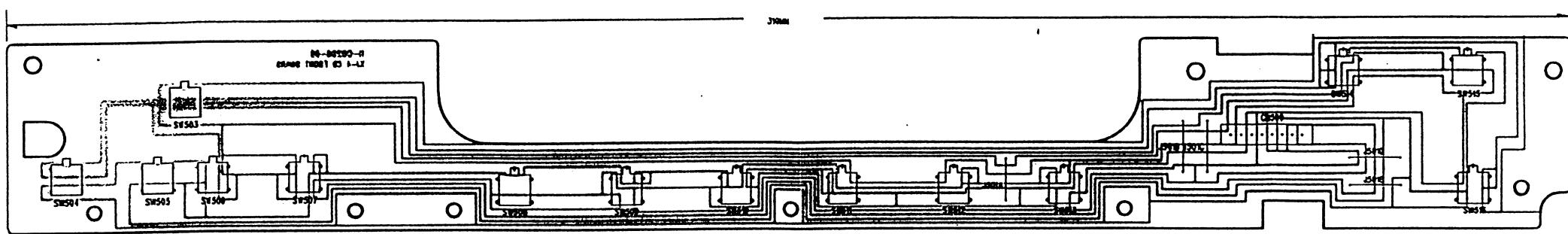
PHONE JACK BOARD
UL94VO 1.6MM THK

ORIENT POWER ELECTRONICS LTD.
MODEL:XJ-4
COMPONENT SIDE
NEGATIVE LAYOUT IS SHOWN
REV:00



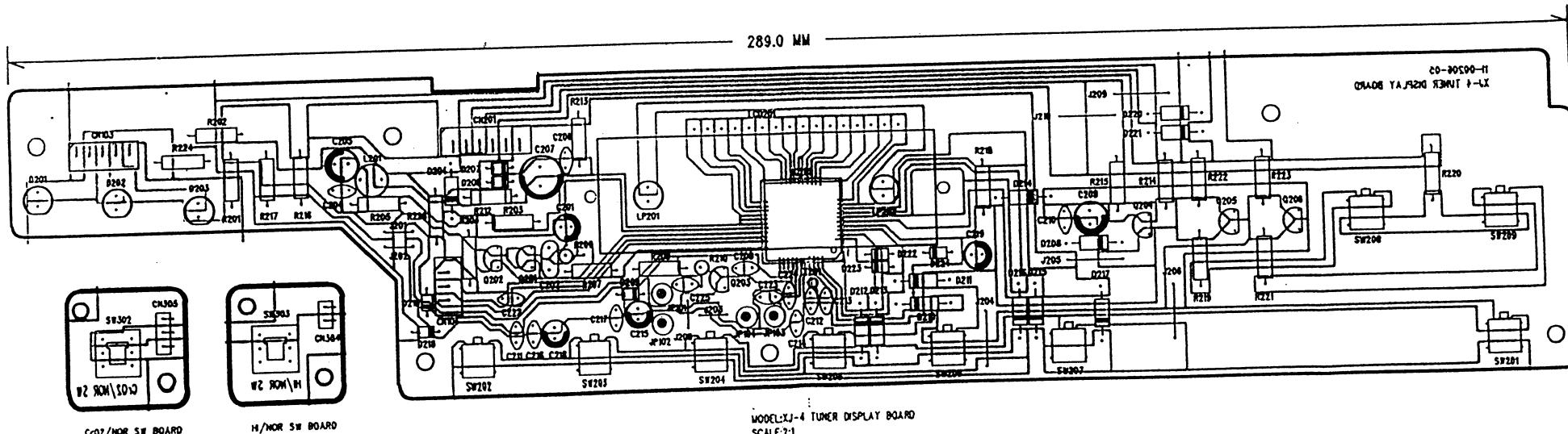
VOLUME BOARD
UL94HB 1.6MM THK





ORIENT POWER ELECTRONICS LTD.
MODEL: LXJ-4 CO FRONT BOARD
NEGATIVE LAYOUT IS SHOWN
COMPONENT SIDE
MATERIAL:UL94HB L8MM TAK
SCALE:2:1
REV:00
DRAWING

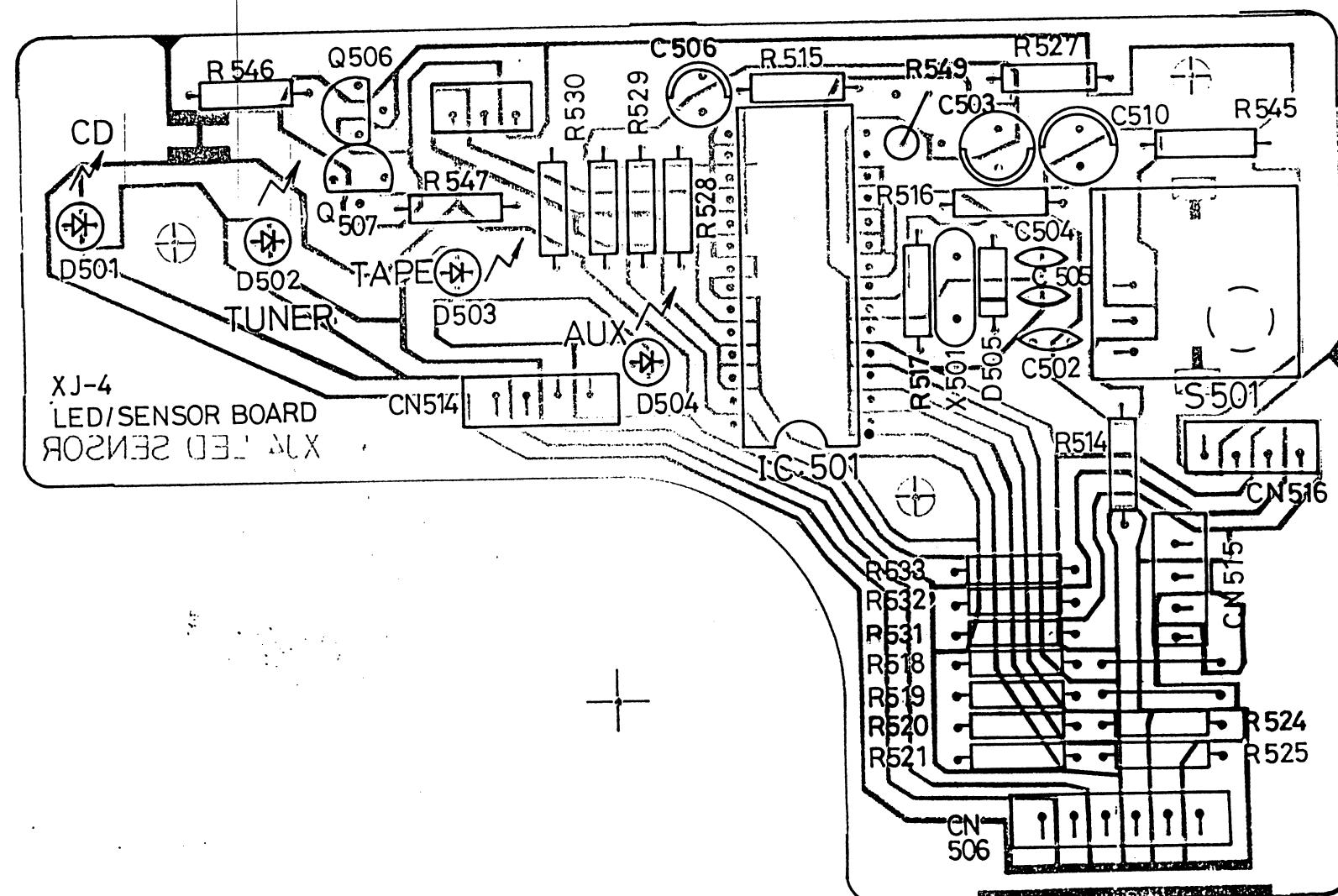
- 289.0 MI



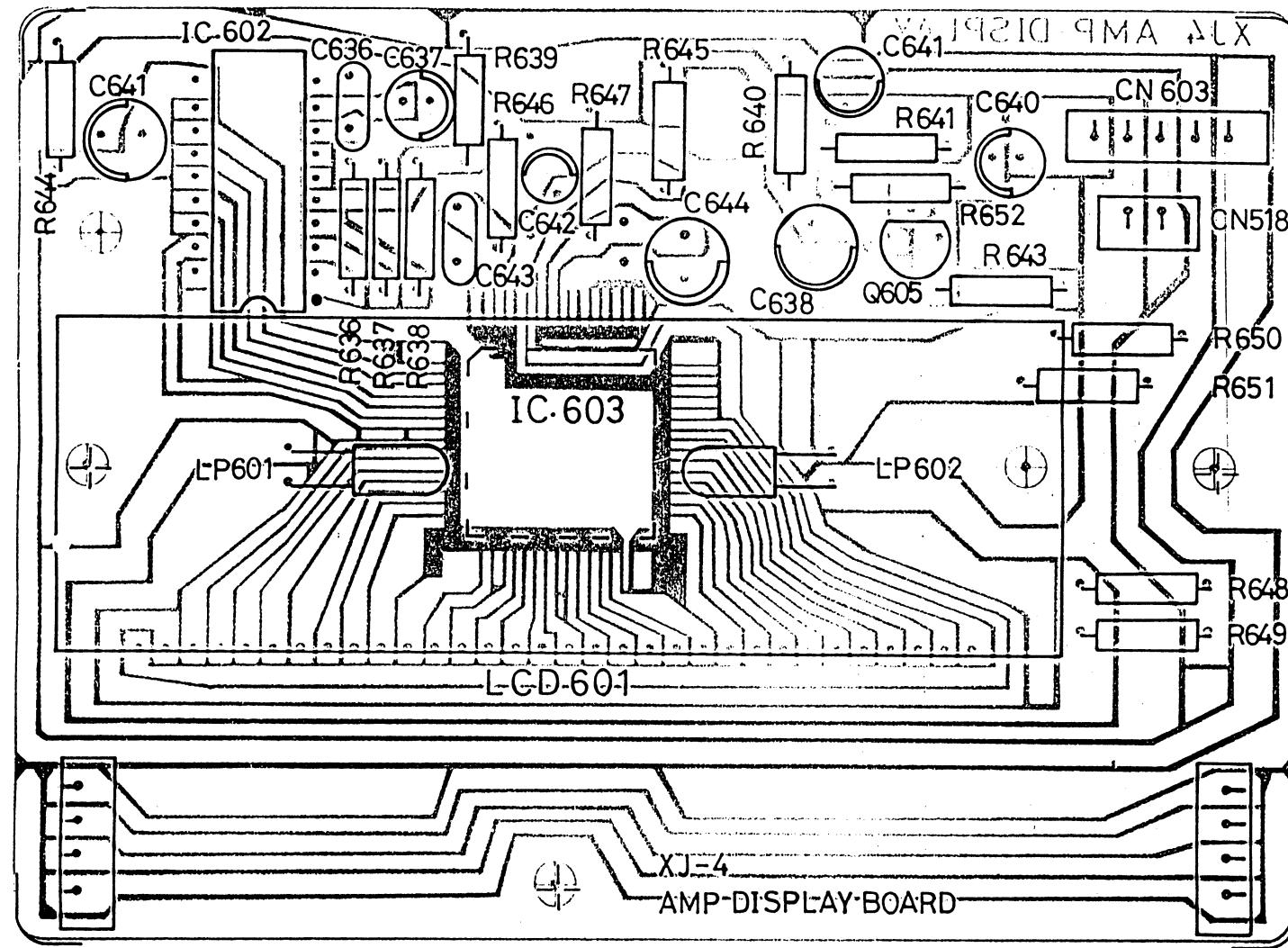
CROZ/MOR SW BOARD

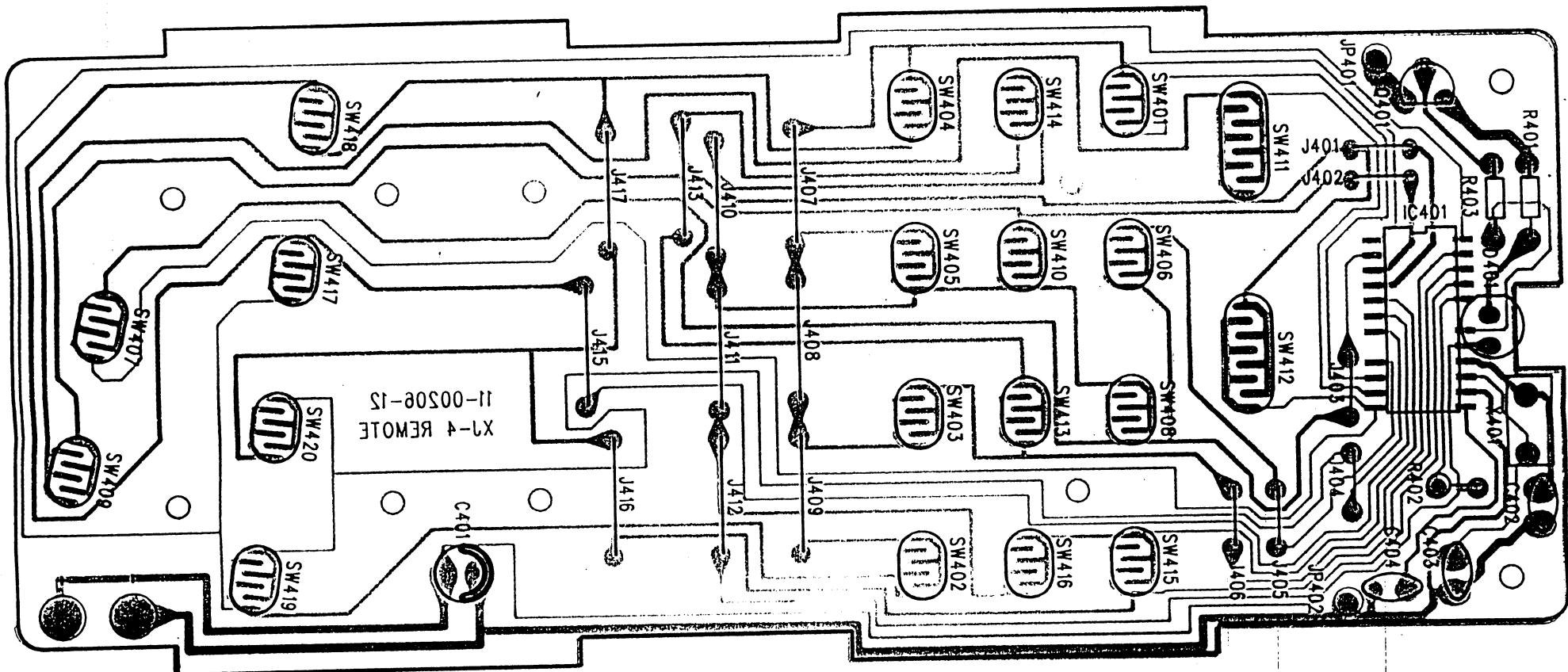
H/MOR SW BOARD

MODEL: XJ-4 TUNER DISPLAY BOARD
SCALE: 2:1
COMPONENT SIDE
REV.00
NEGATIVE LAYOUT IS SHOWN
MATERIAL: 9448 UL. LAYER THK.
0.05 D/C

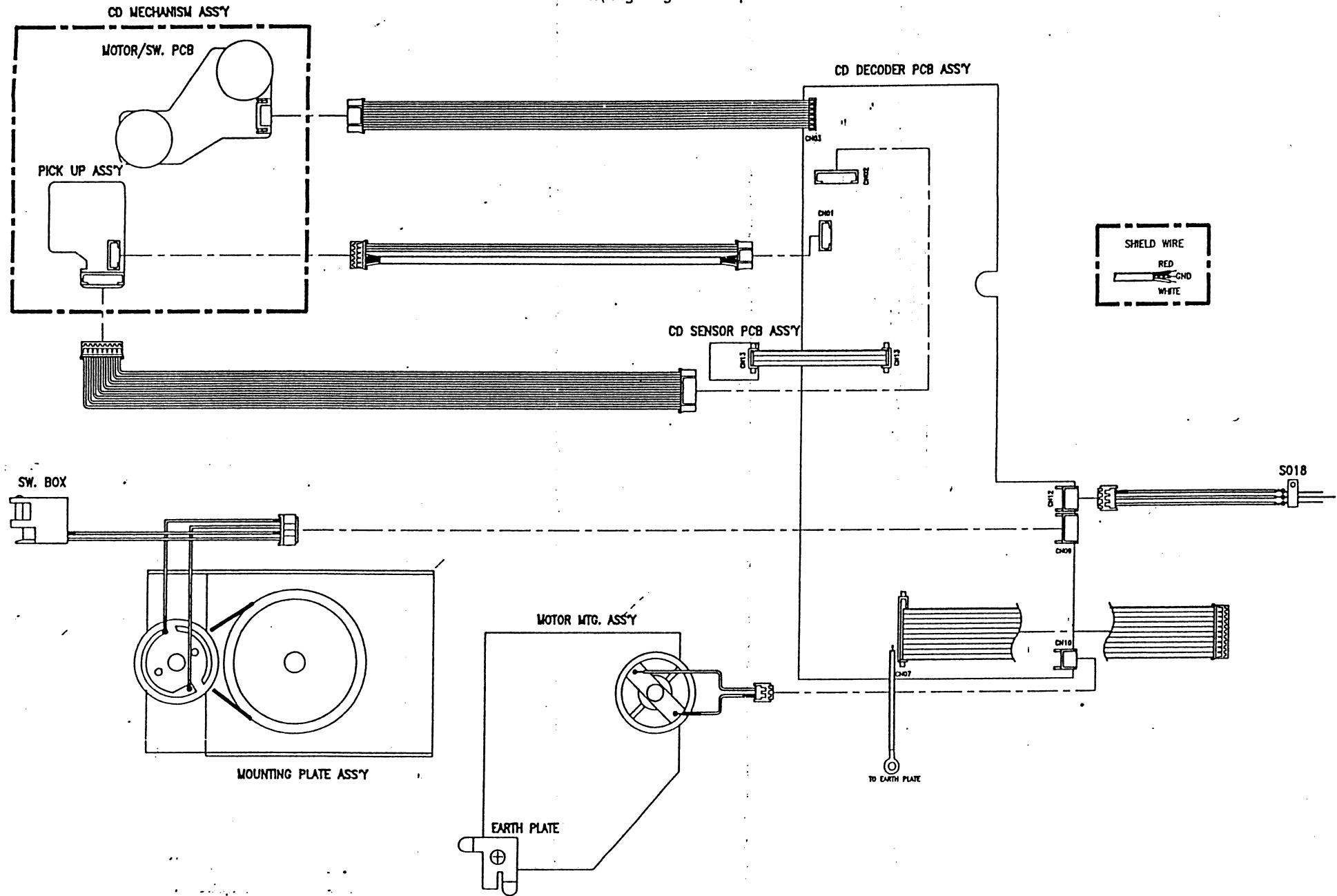


LED/SENSOR

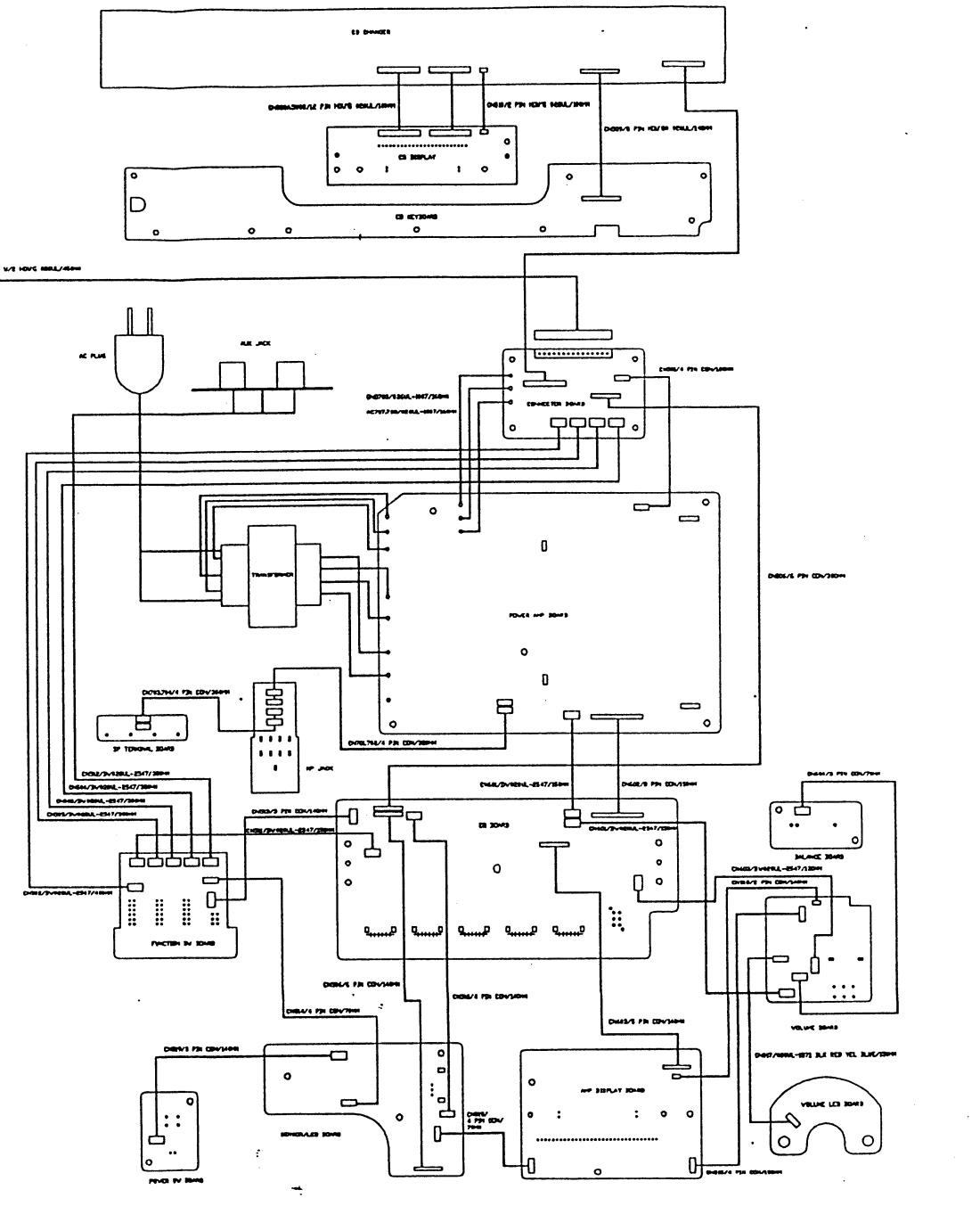
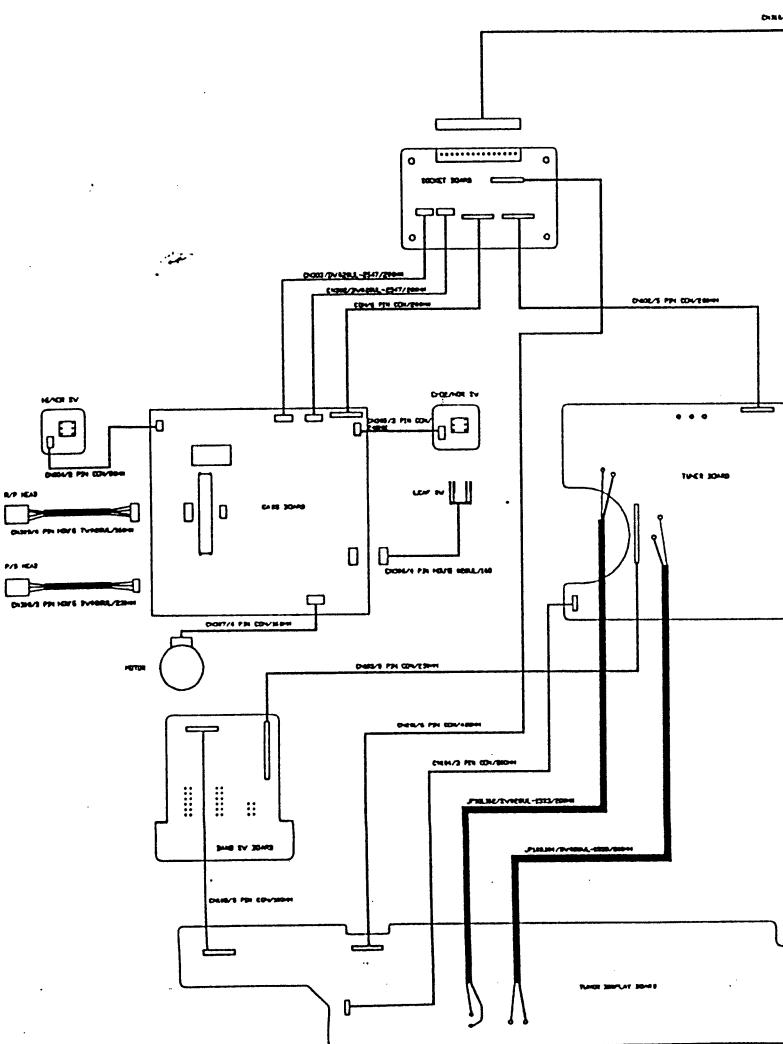


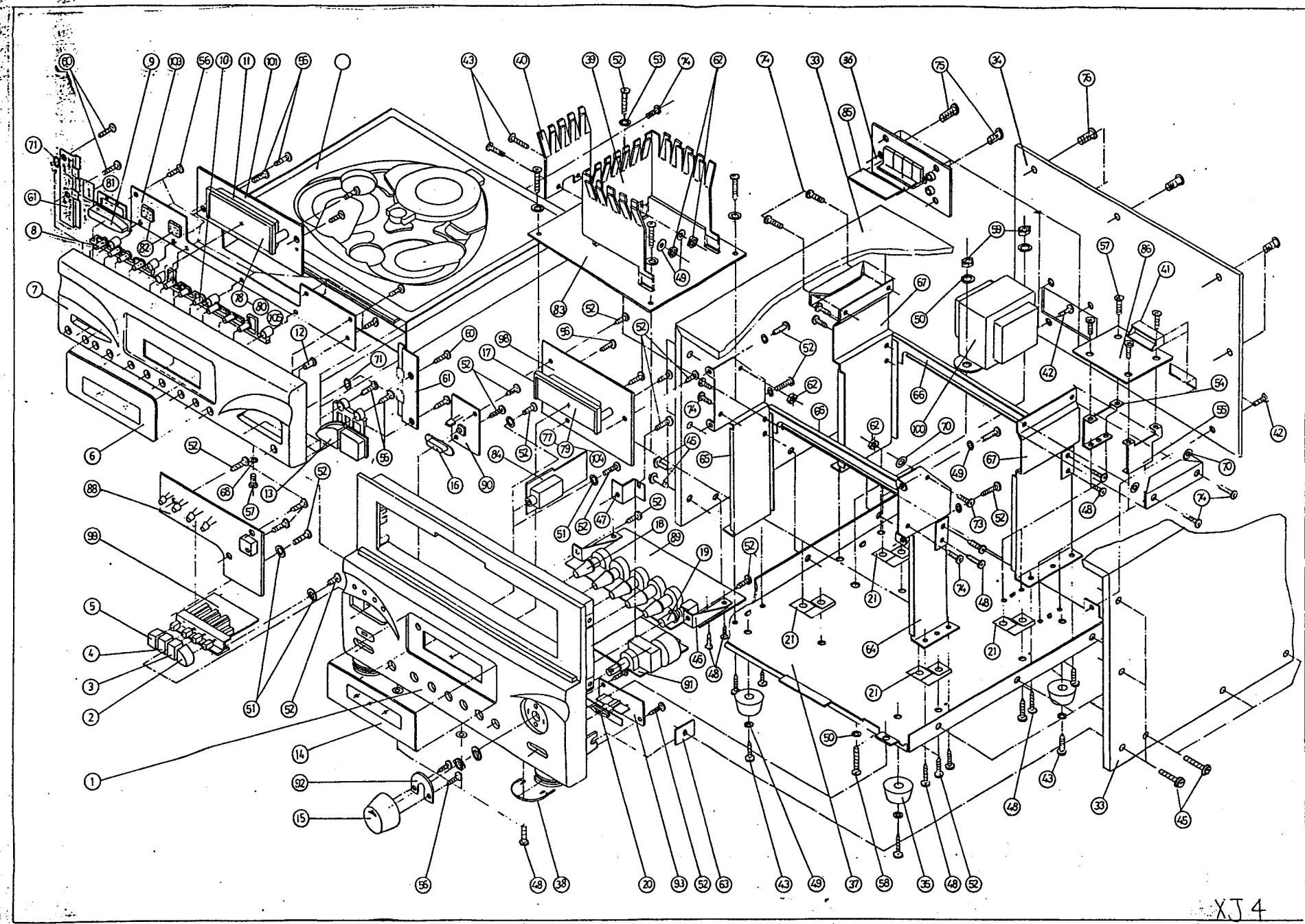


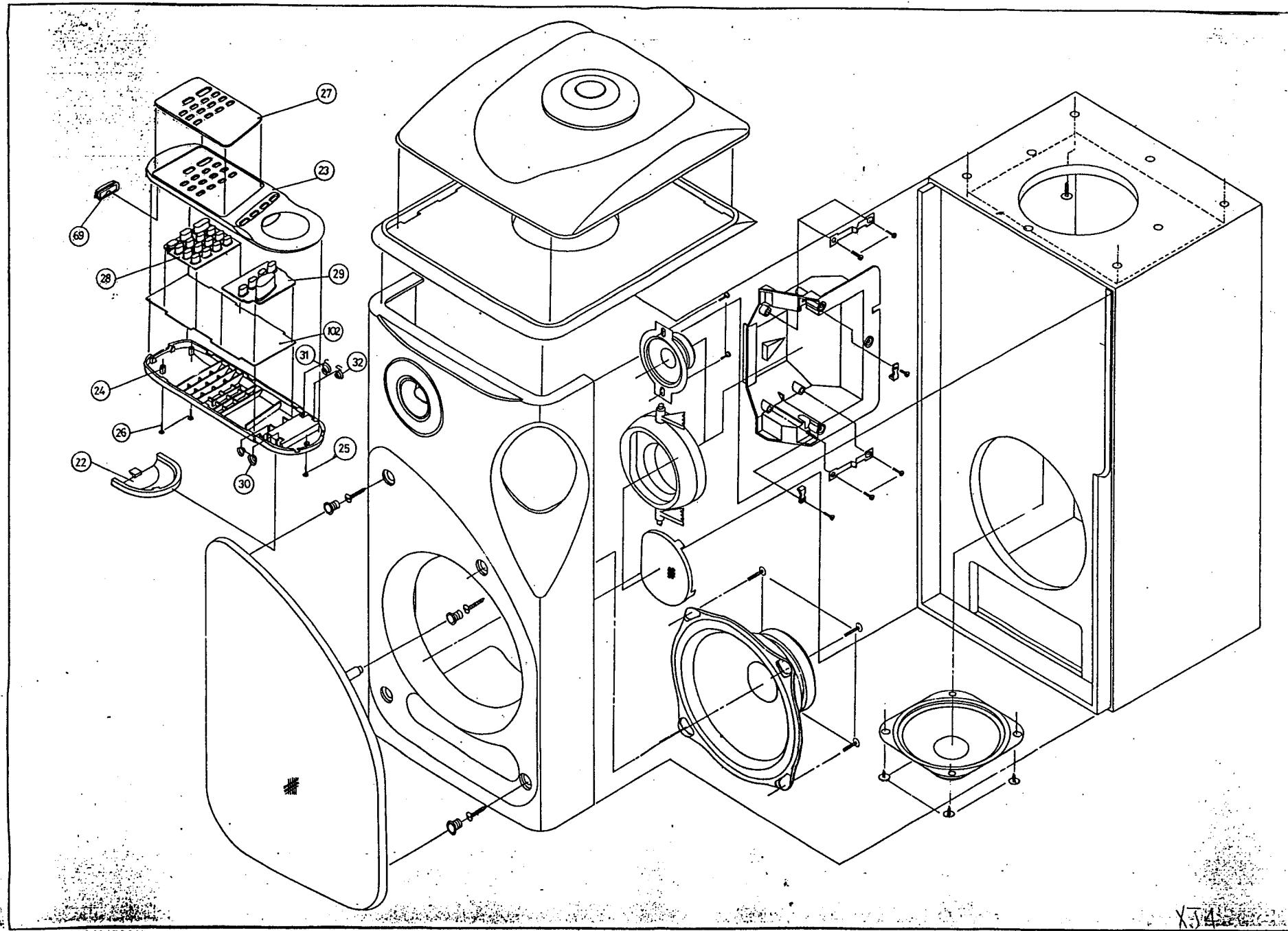
ORIENT POWER ELECTRONIC LTD.
MODEL:XJ-4 REMOTE PCB
COMPONENT SIDE
SCALE:2:1
REV:01
MATERIAL:UL94HB 1.6MM THK
007.DWG



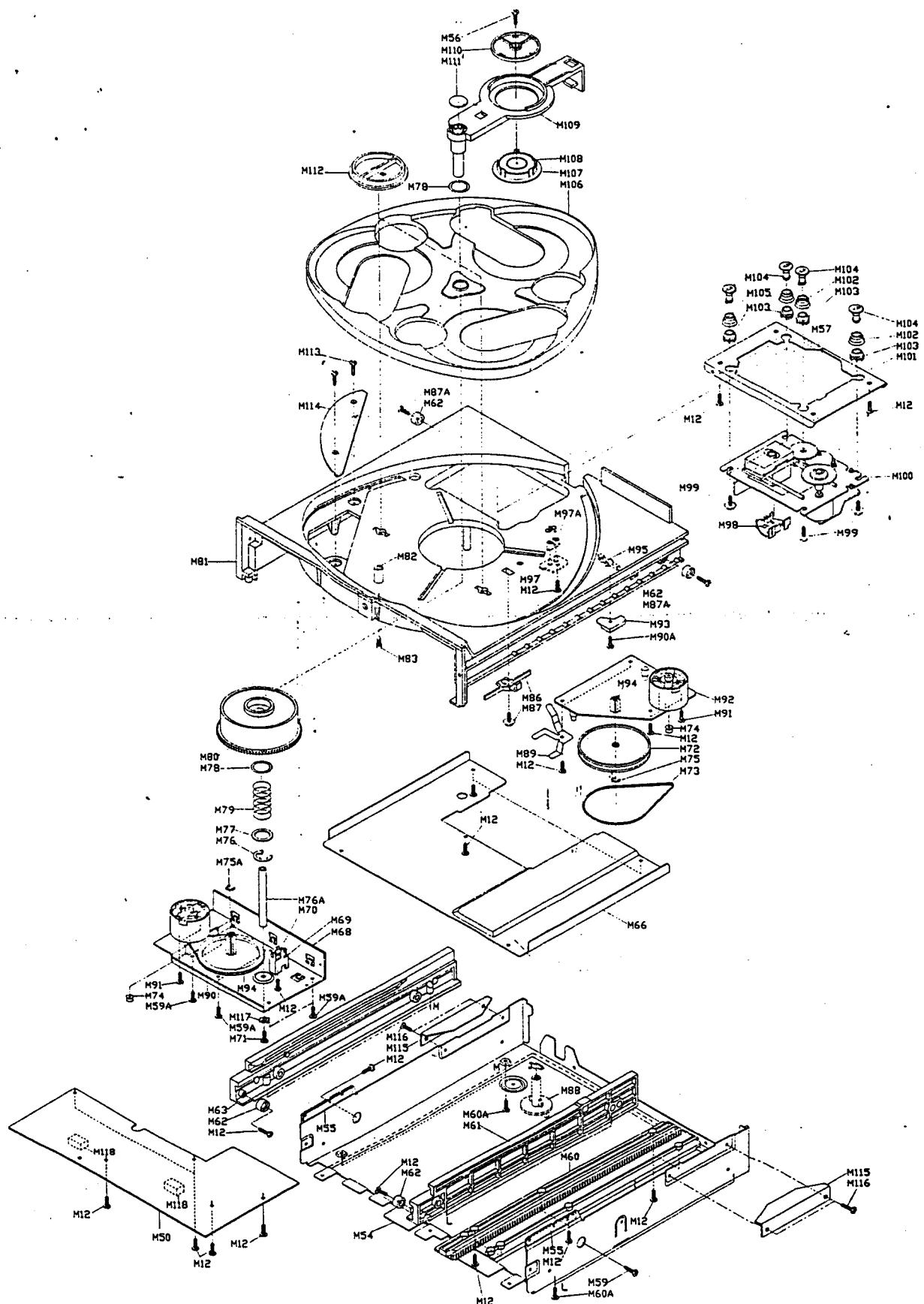
XJ-4 WIRING DIAGRAM







Mechanical Exploded View



XJ4

MECHANICAL PARTS LIST

| Ref. No. | Part No. | Description |
|----------|------------|------------------------------|
| M12 | 8741300800 | 7 (Taptite-P) BID3008 ZN3A |
| M50 | C144233211 | CD decoder PCB assembly |
| M54 | 200107131J | Bottom chassis |
| M55 | 2902078083 | Spacer |
| M56 | 8742260600 | 7 (Taptite-P) BID2606 ZN3K |
| M57 | 208007131J | Cushion |
| M59 | 8741400800 | 7 (Taptite-P) BID4008 ZN3A |
| M59A | 8711301000 | 7 (Taptite-P) PAN3010 ZN3A |
| M60 | 202517131J | Guide pin plate |
| M60A | 8741301000 | 7 (Taptite-P) BID3010 ZN3A |
| M61 | 202307131J | Side rail (R) |
| M62 | 202807131J | Pulley (side) |
| M63 | 202207131J | Side rail (L) |
| M66 | 200607131J | CD PCB cover |
| .468 | 000107131J | Mounting plate assembly |
| M69 | 201107131J | Switch box |
| M70 | 201307131J | Switch pin |
| M71 | 8241300800 | 2 (Machine-ISO) BID3008 ZN3A |
| M72 | 201007131J | Wheel |
| M73 | 201207131J | Belt |
| M74 | 200507131J | Motor pulley |
| M75 | 3130000020 | E ring 2.0φ |
| M75A | 3130000025 | E ring 2.5φ |
| M76 | 3130000080 | E ring 8φ |
| M76A | 200807131J | Center spindle |
| M77 | 202407131J | Washer |
| M78 | 210007131J | Poly washer |
| M79 | 207107131J | Clutch spring |
| M80 | 200407131J | Cam gear |
| M81 | 100207131J | Changer base |
| M82 | 201907131J | Sleeve |
| M83 | 202007131J | Sleeve spring |
| M86 | 206307131J | Guide plate |
| M87 | 8761300800 | 7 (Taptite-P) CUP3008 ZN3A |
| M87A | 8741300600 | 7 (Taptite-P) BID3006 ZN3A |
| M88 | 100204JD3D | Lock lever |
| M89 | 206407131J | Earth plate |
| M90 | 207907131J | Belt 58φ |
| M90A | 8741301200 | 7 (Taptite-P) BID3012 ZN3A |
| M91 | 8141260300 | 1 (Machine-JIS) BID2603 ZN3A |
| M92 | 000317131J | Motor MTG. assembly |
| M93 | 204307131J | Lever plate |
| M94 | 203307131J | Gear wheel |
| M95 | 204107131J | Shaft (lever switch) |
| M97 | C044233220 | CD sensor PCB assembly |

| Ref. No. | Part No. | Description |
|----------|------------|----------------------------|
| M97A | 206607131J | 2 LED holder |
| M98 | 205607131J | Wire control holder |
| M99 | 8761300600 | 7 (Taptite-P) CUP3006 ZN3A |
| M100 | C486040404 | CD mechanism CDK90V1HYN |
| M101 | 204707131J | CD plate |
| M102 | 205907131J | Spring (white color) |
| M103 | 205407131J | CDK90 cushion |
| M104 | 203807131J | CDK90 holder |
| M105 | 205807131J | Spring (black color) |
| M106 | 100117131J | Turntable |
| M107 | 201707131J | Magnetic holder |
| M108 | 2105039115 | Magnetic |
| M109 | 000207131J | Arm assembly |
| M110 | 201607131J | Magnetic cover |
| M111 | 102507131J | Screw cap |
| M112 | 202107131J | Transit lock |
| M113 | 8742260800 | 7 (Taptite-P) BID2608 ZN3K |
| M114 | 203407131J | Main base cover |
| M115 | 208207131J | CD side bracket |
| M116 | 8941300600 | 9 (Taptite-B) BID3006 ZN3A |
| M117 | 3023110001 | W gear-B-1-ZN3A |
| M118 | 2900078083 | Cushion |

Replacement Parts List

| Ref. No. | Part No. | Description |
|--------------------------------------------------------------------------------------------------------|------------|-------------|
| RESISTORS | | |
| Note: All resistors are carbon film, $\pm 5\%$ and 1/4 watt, unless otherwise noted. | | |
| R01 | 4050110252 | 1K ohm |
| R02 | 4050112352 | 12K ohm |
| R03 | 4050122352 | 22K ohm |
| R04 | 4050110052 | 10 ohm |
| R05 | 4050110252 | 1K ohm |
| R06 | 4050147352 | 47K ohm |
| R07 | 4050115352 | 15K ohm |
| R08 | 4050115352 | 15K ohm |
| R09 | 4050168252 | 6.8K ohm |
| R10 | 4050112352 | 12K ohm |
| R11 | 4050115352 | 15K ohm |
| R12 | 4050168252 | 6.8K ohm |
| R13 | 4050122352 | 22K ohm |
| R14 | 4050122352 | 22K ohm |
| R15 | 4050156352 | 56K ohm |
| R16 | 4050151452 | 510K ohm |
| R17 | 4050112452 | 120K ohm |
| R18 | 4050110452 | 100K ohm |
| R19 | 4050110452 | 100K ohm |
| R20 | 4050110452 | 100K ohm |
| R21 | 4050115352 | 15K ohm |
| R22 | 4050168252 | 6.8K ohm |
| R23 | 4050110452 | 100K ohm |
| R24 | 4050110452 | 100K ohm |
| R25 | 4050151452 | 510K ohm |
| R26 | 4050133252 | 3.3K ohm |
| R27 | 4050112452 | 120K ohm |
| R28 | 4050110452 | 100K ohm |
| R29 | 4050110552 | 1M ohm |
| R30 | 4050110452 | 100K ohm |
| R31 | 4050110452 | 100K ohm |
| R32 | 4050122352 | 22K ohm |
| R33 | 4050110352 | 10K ohm |
| R34 | 4050110452 | 100K ohm |
| R35 | 4050110352 | 10K ohm |
| R36 | 4050110352 | 10K ohm |
| R37 | 4050168252 | 6.8K ohm |
| R38 | 4050110252 | 1K ohm |
| R42 | 4050110252 | 1K ohm |
| R43 | 4050139152 | 390 ohm |

* Please check your alteration notice before ordering parts. *

| Ref. No. | Part No. | Description |
|----------|------------|-------------|
| R44 | 4050139152 | 390 ohm |
| R45 | 4050147252 | 4.7K ohm |
| R46 | 4050110352 | 10K ohm |
| R47 | 4050139152 | 390 ohm |
| R48 | 4050139152 | 390 ohm |
| R49 | 4050147252 | 4.7K ohm |
| R50 | 4050147252 | 4.7K ohm |
| R51 | 4050122252 | 2.2K ohm |
| R52 | 4050115352 | 15K ohm |
| R53 | 4050147352 | 47K ohm |
| R54 | 4050110352 | 10K ohm |
| R55 | 4050122352 | 22K ohm |
| R56 | 4050122352 | 22K ohm |
| R57 | 4050110352 | 10K ohm |
| R58 | 4050122352 | 22K ohm |
| R62 | 4050182152 | 820 ohm |
| R63 | 4050110352 | 10K ohm |
| R64 | 4050110352 | 10K ohm |
| R65 | 4050182152 | 820 ohm |
| R66 | 4050147252 | 4.7K ohm |
| R67 | 4050122252 | 2.2K ohm |
| R68 | 4050147252 | 4.7K ohm |
| R71 | 4050115152 | 150 ohm |
| R72 | 4050122352 | 22K ohm |
| R78 | 4050122352 | 22K ohm |
| R79 | 4050122352 | 22K ohm |
| R80 | 4050122352 | 22K ohm |
| R81 | 4050122352 | 22K ohm |
| R81L,81R | 4050122252 | 2.2K ohm |
| R82 | 4050147252 | 4.7K ohm |
| R82L,82R | 4050122252 | 2.2K ohm |
| R83 | 4050110352 | 10K ohm |
| R83L,83R | 4050122252 | 2.2K ohm |
| R86 | 4050147252 | 4.7K ohm |
| R87 | 4050110352 | 10K ohm |
| R87L,87R | 4050110252 | 1K ohm |
| R88 | 4050110352 | 10K ohm |
| R88L,88R | 4050110452 | 100K ohm |
| R89 | 4050110352 | 10K ohm |
| R89L,89R | 4050147252 | 4.7K ohm |
| R90L,90R | 4050110352 | 10K ohm |
| R91L,91R | 4050168152 | 680 ohm |
| R92L,92R | 4050110352 | 10K ohm |
| R93 | 4050110352 | 10K ohm |
| R94 | 4050110352 | 10K ohm |

* Please check your alteration notice before ordering parts. *

| Ref. No. | Part No. | Description |
|----------|------------|--------------------|
| R95 | 4050110352 | 10K ohm |
| R96 | 4050110352 | 10K ohm |
| R98 | 4050110052 | 10 ohm |
| FR01,02 | 4180447857 | .47 ohm, 1/4W Fuse |

CAPACITORS

Note: All capacitors are multi-layer ceramic type, unless otherwise noted.
 C=±0.25pF D=±0.5pF J=±5% K=±10% M=±20% N=±30% Z=+80/-20%

| | | | |
|-----|------------|------------|------------------|
| C01 | 7307110315 | .01uF/16V | (K) |
| C02 | 7306610445 | .1uF/50V | (Z) |
| C03 | 5114333550 | .033uF | (J) Mylar |
| C04 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C05 | 5114472550 | .0047uF | (J) Mylar |
| C06 | 7307110315 | .01uF/16V | (K) |
| C07 | 7307110315 | .01uF/16V | (K) |
| C08 | 5154478250 | .47uF/50V | (M) Electrolytic |
| C09 | 7306956055 | 56pF/50V | (J) |
| C10 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C11 | 5114473550 | .047uF | (J) Mylar |
| C12 | 5114472550 | .0047uF | (J) Mylar |
| C13 | 7306547115 | 470pF/50V | (K) |
| C14 | 7306610445 | .1uF/50V | (Z) |
| C15 | 5114333550 | .033uF | (J) Mylar |
| C16 | 5154100225 | 10uF/25V | (M) Electrolytic |
| C17 | 7306610445 | .1uF/50V | (Z) |
| C18 | 5114333550 | .033uF | (J) Mylar |
| C19 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C21 | 5154220216 | 22uF/16V | (M) Electrolytic |
| C23 | 5114103550 | .01uF | (J) Mylar |
| C24 | 7308622345 | .022uF/25V | (Z) |
| C25 | 7308622345 | .022uF/25V | (Z) |
| C26 | 7306510215 | .001uF/50V | (K) |
| C27 | 5154478250 | .47uF/50V | (M) Electrolytic |
| C28 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C29 | 7306610445 | .1uF/50V | (Z) |
| C30 | 7307110315 | .01uF/16V | (K) |
| C31 | 5114333550 | .033uF | (J) Mylar |
| C32 | 5154478250 | .47uF/50V | (M) Electrolytic |
| C33 | 7306610445 | .1uF/50V | (Z) |
| C34 | 7306610445 | .1uF/50V | (Z) |
| C35 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C36 | 7306922055 | 22pF/50V | (J) |
| C37 | 7306922055 | 22pF/50V | (J) |

* Please check your alteration notice before ordering parts. *

| Ref. No. | Part No. | Description | |
|----------|------------|-------------|------------------|
| C38 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C39 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C40 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C41 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C44 | 5154471210 | 470uF/10V | (M) Electrolytic |
| C45 | 5154471210 | 470uF/10V | (M) Electrolytic |
| C46 | 5154222216 | 2200uF/16V | (M) Electrolytic |
| C47 | 5154222216 | 2200uF/16V | (M) Electrolytic |
| C48 | 7308622345 | .022uF/25V | (Z) |
| C49 | 7308622345 | .022uF/25V | (Z) |
| C51 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C52 | 7308622345 | .022uF/25V | (Z) |
| C53 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C54 | 5154220216 | 22uF/16V | (M) Electrolytic |
| C55 | 5114472550 | .0047uF | (J) Mylar |
| C58 | 7306510215 | .001uF/50V | (K) |
| C62 | 7307110315 | .01uF/16V | (K) |
| C63 | 5154101216 | 100uF/16V | (M) Electrolytic |
| C64 | 5154101216 | 100uF/16V | (M) Electrolytic |
| C65 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C66 | 5154101210 | 100uF/10V | (M) Electrolytic |
| C81L,81R | 7307839215 | .039uF/16V | (K) |
| C82L,82R | 7306527115 | 270pF/50V | (K) |
| C83L,83R | 5114153550 | .015uF | (J) Mylar |
| C85L,85R | 7306510215 | .001uF/50V | (K) |
| C86L,86R | 5154100225 | 10uF/25V | (M) Electrolytic |
| C88L,88R | 5154100225 | 10uF/25V | (M) Electrolytic |
| C89L,89R | 5114153550 | .015uF | (J) Mylar |

INTEGRATED CIRCUITS

| | | |
|------|------------|----------------|
| ICO1 | 415C01081M | CXA1081M |
| ICO2 | 415C010821 | CXA1082BQ |
| ICO3 | 415C01167Q | CXD1167Q |
| ICO4 | 4151753083 | UPD75308GF-K13 |
| ICO5 | 4151063767 | UPD6376GS |
| ICO7 | 415904558L | NJM4558L |
| ICO9 | 415G00520D | PST-520D |

* Please check your alteration notice before ordering parts. *

| Ref. No. | Part No. | Description |
|--------------------|---------------|-------------|
| TRANSISTORS | | |
| Q01 | 410000952L | 2SA952L |
| Q02 | 410022001L | 2SC2001L |
| | or 410022001M | 2SC2001M |
| Q03 | 410000952L | 2SA952L |
| Q04 | 410022001L | 2SC2001L |
| | or 410022001M | 2SC2001M |
| Q05 | 410000952L | 2SA952L |
| Q06 | 410022001L | 2SC2001L |
| | or 410022001M | 2SC2001M |
| Q07 | 410000952L | 2SA952L |
| Q08 | 410022001L | 2SC2001L |
| | or 410022001M | 2SC2001M |
| Q09 | 410000952L | 2SA952L |
| Q10 | 410020945P | 2SC945P |
| | or 410020945Q | 2SC945Q |
| Q11 | 410020945P | 2SC945P |
| | or 410020945Q | 2SC945Q |
| Q12 | 410000733P | 2SA733P |
| | or 410000733Q | 2SA733Q |
| Q14 | 410030882P | 2SD882P |
| | or 410030882Q | 2SD882Q |
| Q15 | 410010772P | 2SB772P |
| | or 410010772Q | 2SB772Q |
| Q16 | 410020945P | 2SC945P |
| | or 410020945Q | 2SC945Q |
| Q17 | 410000733P | 2SA733P |
| | or 410000733Q | 2SA733Q |
| Q18 | 410020945P | 2SC945P |
| | or 410020945Q | 2SC945Q |
| Q19 | 410022001L | 2SC2001L |
| | or 410022001M | 2SC2001M |
| Q20 | 410000952L | 2SA952L |
| Q21 | 410000733P | 2SA733P |
| | or 410000733Q | 2SA733Q |
| Q22 | 410000952L | 2SA952L |
| Q23 | 410022001L | 2SC2001L |
| | or 410022001M | 2SC2001M |
| Q24 | 410000733P | 2SA733P |
| | or 410000733Q | 2SA733Q |

* Please check your alteration notice before ordering parts. *

| Ref. No. | Part No. | Description |
|----------|-----------------------------|--------------------|
| Q25 | 410020945P or 410020945Q | 2SC945P 2SC945Q |
| Q26 | 410020945P or 410020945Q | 2SC945P 2SC945Q |
| Q27 | 410020945P or 410020945Q | 2SC945P 2SC945Q |
| Q28 | 410020945P or 410020945Q | 2SC945P 2SC945Q |
| Q33 | 410000733P or 410000733Q | 2SA733P 2SA733Q |
| XTL01 | 410098467M | Crystal 8.4672MHz |

See special handling techniques for electrostatically sensitive devices as described in section of this service manual.

DIODES

| | | |
|------|-----------------------------|--------------------------------------|
| PH01 | 41200ST7LD or 412000ST8L | ST-7L ST-8L |
| D01 | 4120901760 | 1SS176 |
| D06 | 412152056J or 412153056J | RD5.6JSB2, ZENER RD5.6JSB3, ZENER |
| D07 | 412152056J or 412153056J | RD5.6JSB2, ZENER RD5.6JSB3, ZENER |
| D08 | 4138104002 | IN4002L |
| D09 | 4138104002 | IN4002L |
| D10 | 4138104002 | IN4002L |
| D11 | 4138104002 | IN4002L |
| D13 | 41200EL7LD or 412000EL8L | EL-7L EL-8L |
| D14 | 412152100J or 412153100J | RD10JSB2, ZENER RD10JSB3, ZENER |
| D15 | 412152100J or 412153100J | RD10JSB2, ZENER RD10JSB3, ZENER |
| D17 | 4120901760 | 1SS176 |
| D19 | 412151051J | RD5.1JSB1, ZENER |

SEMI-FIXED RESISTOR

| | | |
|------|------------|------|
| VR01 | 5226203177 | 20KX |
| VR02 | 5226103177 | 10KX |
| VR05 | 5226202177 | 2KX |

* Please check your alteration notice before ordering parts. *

| Ref. No. | Part No. | Description |
|---------------|------------|----------------------------------|
| OTHERS | | |
| L01-03 | 4325010093 | Peaking coil 10 uH "K" |
| S017 | 4400000168 | LEAF SW. MLS-1 |
| E1 | 4020100190 | Turntable motor MMN-6E9D1 |
| E2 | 4144233220 | CD sensor PCB (Blank) |
| E3 | 4490300261 | Wire holder 3P20 |
| E4 | 4490201002 | Male connector EH 2P |
| E5 | 4490401002 | Male connector EH 4P |
| E6 | 4490501004 | Male connector PH 5P |
| E7 | 4490801004 | Male connector PH 8P |
| E8 | 4491201005 | Male connector PH 12P |
| E9 | 4490801005 | Male connector PH 8P |
| E10 | 4490201005 | Male connector PH 2P |
| E11 | 449R201005 | Male connector PH 12P (RED) |
| E12 | 4490201003 | Male connector EH 2P |
| E13 | 4490301003 | Male connector EH 3P |
| E14 | 4490401003 | Male connector EH 4P |
| E15 | 4491200261 | Wire holder 12P20 |
| E16 | 4144233210 | CD decoder PCB (Blank) |
| E17 | 4110440199 | LCD display HLC8132-012312 |
| E18 | 4151612576 | Integrated circuit UPD6125AG-876 |

* Please check your alteration notice before ordering parts. *

Wire List

| Ref. No. | Part No. | Description |
|----------|------------|-------------------------------------|
| CN001 | C488051413 | 5P connector assembly 350m/m |
| CN002 | C488081425 | 8P connector assembly 350m/m |
| CN03 | C48D064011 | 6P connector assembly 400m/m |
| CN07 | C488101562 | 10P connector assembly 750m/m |
| CN009 | C488040583 | 4P connector assembly 300/200 4.5/0 |
| CN010 | C488020490 | 2P connector assembly 200 4.5/0 |
| CN12 | C488030489 | 3P connector assembly 150 4.5/0 |
| CN13 | 5410324040 | FTW (2.0)3 BLK 240 4.5/4.5 |
| CN15 | 4590200105 | Earth terminal assembly BLK-200 |

* Please, check your alteration notice before ordering parts. *

| | | | |
|----|--------------------------------|----|--------------|
| 1 | XJ-4 AMP FRONT PANEL | 1 | 60-00206-10 |
| 2 | XJ-4 PUSH SWITCH BUT(AUX) | 1 | 53-00206-26 |
| 3 | XJ-4 PUSH SWITCH BUT (TAPE) | 1 | 53-00206-25 |
| 4 | XJ-4 PUSH SWITCH BUT (TUNER) | 1 | 53-00206-24 |
| 5 | XJ-4 PUSH SWITCH BUT (CD) | 1 | 53-00206-23 |
| 6 | XJ-4 CD DISPLAY LENS | 1 | 43-00206-21 |
| 7 | XJ-4 CD FRONT PANEL | 1 | 60-00206-09 |
| 8 | XJ-4 CD PUSH BUT (SEARCH) | 1 | 53-00206-18 |
| 9 | XJ-4 CHANGE DISC PUSH BUTTON | 1 | 53-00206-27 |
| 10 | XJ-4 CD PUSH BUTTON (FUNT) | 1 | 53-00206-17 |
| 11 | XJ-4 CD DISPLAY BRACKET 'WHT' | 1 | 48-00206-02 |
| 12 | XJ-4 CD PUSH BUTTON (EJECT) | 1 | 53-00206-19 |
| 13 | XJ-4 PLAY/STOP BUTTON | 1 | 53-00206-28 |
| 14 | XJ-4 AMP DISPLAY LENS | 1 | 43-00206-22 |
| 15 | XJ-4 REMMROTE VOLUME KNOB | 1 | 51-00206-01 |
| 16 | XJ-4 POWER KNOB | 1 | 52-00206-03 |
| 17 | XJ-4 AMP DISPLAY BRACKET 'WHT' | 1 | 48-00206-03 |
| 18 | XJ-4 AMP ROTATY KNOB | 5 | 51-00206-00 |
| 19 | XJ-4 DYNAMIC BASS BOOST | 1 | 52-00206-05 |
| 20 | XJ-4 BALANCE KNOB | 1 | 52-00206-04 |
| 21 | XJ-4 PCB BRACKET | 4 | 48-00206-06 |
| 22 | XJ-4 R/C BATTERY COVER | 1 | 58-00206-02 |
| 23 | XJ-4 R/C FRONT CABINET | 1 | 60-00206-12 |
| 24 | XJ-4 R/C BACK CABINET | 1 | 61-00206-02 |
| 25 | SCREW d2x6 KH/ST BLK/ZN (HD=4) | 1 | 40-12006-22A |
| 26 | SCREW d2x12 KH/ST 'BLK' (HD=4) | 2 | 40-12012-22A |
| 27 | XJ-4 REMOTE HANDSET INLAY | 1 | 43-00206-27 |
| 28 | XJ-4 R/C RUBBER KEY A | 1 | 81-00206-02 |
| 29 | XJ-4 R/C RUBBER KEY B | 1 | 81-00206-03 |
| 30 | XJ-4 R/C BATTERY SPRING '+/-' | 1 | 74-00206-02 |
| 31 | XJ-4 R/C BATTERY SPRING '-' | 1 | 74-00206-03 |
| 32 | XJ-4 R/C BATTERY SPRING '+' | 1 | 74-00206-04 |
| 33 | XJ-4 WOODEN CASE (CD) | 1 | 82-00206-05 |
| 34 | XJ-4 REAR BOARD (CD) (NEW) | 1 | 82-00206-06 |
| 35 | XJ-4 RUBBER FOOT d20x8MM | 4 | 81-00206-01 |
| 36 | XJ-4 TERMINAL PLATE 'BLK' | 1 | 12-00206-01 |
| 37 | XJ-4 METAL BASE | 1 | 39-00206-05 |
| 38 | XJ4 LEG DECORATION WIRE | 2 | 36-00206-01 |
| 39 | XJ-4 HEAT SINK | 1 | 39-00206-07 |
| 40 | XJ-4 HEAT SINK PLATE | 1 | 39-00206-08 |
| 41 | TERMINAL 212A | 2 | 78-00612-00 |
| 42 | SCREW M3X8 WH/MS | 7 | 40-03008-03 |
| 43 | SCREW M3X12 BH/MS | 6 | 40-03012-01 |
| 44 | | | |
| 45 | SCREW 3X12 WH/MS BLK | 12 | 40-03012-23 |
| 46 | XJ-4 EQ CONTROL PCB BRACKET | 2 | 39-00206-14 |
| 47 | XJ4 VOLUME MOUNTING BRACKET | 1 | 39-00206-19 |
| 48 | SCREW M3X8 BH/MS 'BLK' | 23 | 40-03008-01 |
| 49 | METAL WASHER d8Xd3x0.5MM | 10 | 35-00001-00 |
| 50 | METAL WASHER d12xd4x1MM | 4 | 35-00030-00 |

| | | | |
|-----|---------------------------------|----|-------------|
| 51 | METAL WASHER d10xd3x0.5MM | 4 | 35-00009-00 |
| 52 | SCREW d3X8 BH/ST | 30 | 40-13008-01 |
| 53 | FIBRE WASHER d14xd3x1.5MM | 5 | 35-10019-00 |
| 54 | XJ-4 SOCKET PCB BRACKET 'L' | 1 | 39-00206-11 |
| 55 | XJ-4 SOCKET PCB BRACKET 'R' | 1 | 39-00206-13 |
| 56 | SCREW d2.6 x 8 BH / ST | 19 | 40-12608-01 |
| 57 | SCREW M2.6X6 PH/MS 'TAPTITE' | 9 | 40-02606-50 |
| 58 | SCREW M4X12 BH/12 BH/MS | 2 | 40-04012-01 |
| 59 | M4 NUT | 2 | 35-40008-00 |
| 60 | SCREW d3X10 BH/ST | 4 | 40-13010-01 |
| 61 | XJ-4 CD PANEL MOUNTING BRACKET | 2 | 39-00206-12 |
| 62 | STEEL NUT M3 | 4 | 35-40007-00 |
| 63 | 4150 PANEL FIXING PLATE | 6 | 39-04150-08 |
| 64 | XJ-4 CD FRONT MTG BKT (B) | 1 | 39-00206-03 |
| 65 | XJ-4 CD FRONT MTG BKT (C) | 1 | 39-00206-04 |
| 66 | XJ-4 CD REAR MTG BKT (B) | 2 | 39-00206-02 |
| 67 | XJ-4 CD REAR MOUNTING BKT A | 2 | 39-00206-01 |
| 68 | METAL WASHER d3Xd10x1MM | 1 | 35-00010-00 |
| 69 | XJ-4 R/C LENS (RED) | 1 | 43-00206-26 |
| 70 | METAL WASHER d14x3.2x1MM | 3 | 35-00015-00 |
| 71 | FIBRE WASHER d3xd8x0.5MM | 2 | 35-10060-00 |
| 72 | SCREW M2X4 PH/MS 'TAPTITE' | 3 | 40-02004-50 |
| 73 | SCREW M3X6 BH/MS 'BLK' | 2 | 40-03006-01 |
| 74 | SCREW M3X6 BH/MS 'TAPTITE' | 7 | 40-03006-51 |
| 75 | SCREW d3X8 BH/ST 'BLK' | 2 | 40-13008-21 |
| 76 | SCREW d3X12 WH/ST 'A' | 5 | 40-13012-13 |
| 77 | XJ-4 LCD FILTER "AMP" (WHT) NEW | 1 | 43-00206-16 |
| 78 | XJ-4 LCD FILTER "CD" (WHT) NEW | 1 | 43-00206-17 |
| 79 | XJ-4 LCD GREEN PLT "AMP" | 1 | 43-00206-19 |
| 80 | XJ-4 LCD GREEN PLT "CD" | 1 | 43-00206-20 |
| 81 | FELT 10X12X0.8MM BLK W/TAPE | 1 | 68-00206-01 |
| 82 | SPONGE 15X15X10MM W/TAPE | 2 | 81-00206-00 |
| 83 | POWER AMP PCB 94V0 1.6MM | 1 | 11-00206-07 |
| 84 | PHONE JACK PCB 94V0 1.6MM | 1 | 11-00206-19 |
| 85 | SP JACK PCB 94V0 1.6MM | 1 | 11-00206-21 |
| 86 | CONNECTOR PCB 94HB 1.6MM | 1 | 11-00206-09 |
| 87 | | | |
| 88 | LED/SENSOR PCB 94HB 1.6MM | 1 | 11-00206-20 |
| 89 | EQ PCB 94HB 1.6MM | 1 | 11-00206-22 |
| 90 | POWER TACT SW PCB 94HB 1.6MM | 1 | 11-00206-13 |
| 91 | VOLUME PCB 94HB 1.6MM | 1 | 11-00206-10 |
| 92 | VOLUME LED PCB 94HB 1.6MM | 1 | 11-00206-17 |
| 93 | BALANCE PCB 94HB 1.6MM | 1 | 11-00206-18 |
| 94 | | | |
| 95 | | | |
| 96 | | | |
| 97 | | | |
| 98 | AMP DISPLAY PCB 94HB 1.6MM | 1 | 11-00206-11 |
| 99 | FUNCTION SWITCH PCB 94HB 1.6MM | 1 | 11-00206-08 |
| 100 | EI-66 VDE SF-66E/14B/16A/22A | 1 | 15-00115-02 |

DUAL VOLT. VERSION

| Ref. NO. | Description | QTY. | Mfr's Part No. |
|----------|------------------------------|------|----------------|
| 1 | XJ-4 CASS DOOR LENS 'A' | 1 | 43-00206-23 |
| 2 | XJ-4 CASS DOOR LENS 'B' | 1 | 43-00206-24 |
| 3 | XJ-4 TUNER DISPLAY LENS | 1 | 43-00206-25 |
| 4 | XJ-4 TUNER LCD BRACKET (WHT) | 1 | 48-00206-00 |
| 5 | XJ-4 TUNING KNOB | 1 | 51-00206-02 |
| 6 | XJ-4 BAND KNOB (AM) | 1 | 52-00206-00 |
| 7 | XJ-4 BAND KNOB (FM) | 1 | 52-00206-01 |
| 8 | BAND KNOB (FM/STEREO) | 1 | 52-00206-02 |
| 9 | XJ-4 CASS KNOB (REC) 'L' | 1 | 53-00206-00 |
| 10 | XJ-4 CASS KNOB (PLAY) 'L' | 1 | 53-00206-01 |
| 11 | XJ-4 CAS KNOB (REW) 'L' | 1 | 53-00206-02 |
| 12 | XJ-4 CASS KNOB (F.F) 'L' | 1 | 53-00206-03 |
| 13 | XJ-4 CASS KNOB (ST/EJ) 'L' | 1 | 53-00206-04 |
| 14 | XJ-4 CASS KNOB (PAUSE) 'L' | 1 | 53-00206-05 |
| 15 | XJ-4 CASS KNOB (PLAY) 'R' | 1 | 53-00206-06 |
| 16 | XJ-4 CASS KNOB (REW) 'R' | 1 | 53-00206-07 |
| 17 | XJ-4 CASS KNOB (F.F) 'R' | 1 | 53-00206-08 |
| 18 | XJ-4 CASS KNOB (ST/EJ) 'R' | 1 | 53-00206-09 |
| 19 | XJ-4 CASS KNOB (PAUSE) 'R' | 1 | 53-00206-10 |
| 20 | XJ-4 PRE-SET KNOB | 1 | 53-00206-11 |
| 21 | XJ-4 MEMORY KNOB | 1 | 53-00206-14 |
| 22 | XJ-4 HI-SPEED KNOB | 1 | 53-00206-15 |
| 23 | XJ-4 CRO2/NORMAL KNOB | 1 | 53-00206-29 |
| 24 | XJ-4 FRONT CABINET | 1 | 60-00206-00 |
| 25 | XJ-4 GEAR HOLDER | 2 | 63-00206-00 |
| 26 | XJ-4 GEAR | 2 | 63-00206-01 |
| 27 | XJ-4 CASS DOOR BRACKET | 2 | 66-00206-02 |
| 28 | XJ-4 CASS DOOR COVER (B) | 1 | 66-00206-04 |
| 29 | XJ-4 CASS DOOR COVER (A) | 1 | 66-00206-05 |
| 30 | XJ-4 CASS DOOR SPRING | 2 | 36-00206-00 |
| 31 | XJ-4 LEG DECKATION WIRE | 2 | 36-00206-01 |
| 32 | XJ-4 SOCKET PCB BKT 'L' | 1 | 39-00206-11 |
| 33 | XJ-4 SOCKET PCB BKT 'R' | 1 | 39-00206-13 |
| 34 | XJ-4 RECORD PCB BRACKET (B) | 1 | 39-00206-16 |
| 35 | XJ-4 CASS-KEY BRACKET | 2 | 39-00206-18 |
| 36 | 1207 ANTENNA BKT. NEW | 1 | 39-01207-12A |
| 37 | 1207 ANTENNA BKT. PLATE NEW | 1 | 39-01207-13A |
| 38 | XJ-4 MOUNTING BKT 'A' (NEW) | 1 | 39-00206-09A |
| 39 | XJ-4 MOUNTING BKT 'B' | 1 | 39-00206-10 |
| 40 | 4150 PANEL FIXING PLATE | 9 | 39-04150-08 |
| 41 | 5831 RECORD PCB BKT. 'A' | 1 | 39-05831-00 |
| 42 | 5831 RECORD PLATE 'R' | 1 | 39-05831-02 |
| 43 | METAL WASHER d10xd3x0.5MM | 2 | 35-00009-00 |
| 44 | METAL WASHER d8xd3x0.5MM | 4 | 35-00001-00 |
| 45 | METAL WASHER d7x2.6x0.5MM | 4 | 35-00012-00 |
| 46 | FIBER WASHER d6x3x0.5MM | 2 | 35-10007-00 |
| 47 | SCREW M2x3 BH/MS | 1 | 40-02003-51 |
| 48 | SCREW M2x4 BH/MS | 5 | 40-02004-51 |
| 49 | SCREW M2.6x6 PH/MS | 6 | 40-02606-50 |

ELECTRICAL PARTS LIST

CAPACITORS

| Ref. NO. | Description | Mfr's Part No. |
|----------|-------------------|----------------|
| C101 | CER CAP 39PF | 05-00390-00 |
| C102 | CER CAP 0.001UF | 05-00102-82 |
| C103 | | |
| C104 | CER CAP 0.001UF | 05-00102-82 |
| C105 | CER CAP 5PF NPO | 05-00050-06 |
| C106 | CER CAP 0.001UF | 05-00102-82 |
| C107 | CER CAP 5PF | 05-00050-00 |
| C108 | CER CAP 0.02UF | 05-00203-82 |
| C109 | CER CAP 15PF NPO | 05-00150-06 |
| C110 | CER CAP 15PF NPO | 05-00150-06 |
| C111 | CER CAP 0.001UF | 05-00102-82 |
| C112 | CER CAP 2PF | 05-00020-00 |
| C113 | E. CAP 100UF 10V | 06-10107-00 |
| C114 | CER CAP 0.02UF | 05-00203-82 |
| C115 | CER CAP 0.02UF | 05-00203-82 |
| C116 | CER CAP 0.001UF | 05-00102-82 |
| C117 | CER CAP 0.02UF | 05-00203-82 |
| C118 | | |
| C119 | CER CAP 330PF | 05-00331-00 |
| C120 | E. CAP 2.2UF 50V | 06-50225-00 |
| C121 | E. CAP 2.2UF 50V | 06-50225-00 |
| C122 | MYLAR CAP 0.068UF | 05-02683-10 |
| C123 | MYLAR CAP 0.082UF | 05-02823-10 |
| C124 | MYLAR CAP 0.082UF | 05-02823-10 |
| C125 | MYLAR CAP 0.018UF | 05-02183-10 |
| C126 | MYLAR CAP 0.018UF | 05-02183-10 |
| C127 | CER CAP 330PF | 05-00331-00 |
| C128 | CER CAP 330PF | 05-00331-00 |
| C129 | E. CAP 1UF 50V | 06-50105-00 |
| C130 | E. CAP 1UF 50V | 06-50105-00 |
| C131 | CER CAP 0.02UF | 05-00203-82 |
| C132 | CER CAP 10PF NPO | 05-00100-06 |
| C133 | POLY CAP 360PF | 05-09361-05 |
| C134 | | |
| C135 | | |
| C136 | MYLAR CAP 0.022UF | 05-02223-10 |
| C137 | E. CAP 220UF 10V | 06-10227-00 |
| C138 | CER CAP 0.02UF | 05-00203-82 |
| C139 | E. CAP 4.7UF 50V | 06-50475-00 |
| C140 | CER CAP 0.01UF | 05-00102-82 |
| C141 | CER CAP 0.02UF | 05-00203-82 |
| C142 | | |
| C143 | CER CAP 5PF | 05-00050-00 |
| C144 | CER CAP 0.02UF | 05-00203-82 |
| C145 | CER CAP 0.02UF | 05-00203-82 |
| C146 | CER CAP 0.02UF | 05-00203-82 |

| | | | |
|------|--------------------|--|-------------|
| C147 | CER CAP 0.02UF | | 05-00203-82 |
| C148 | CER CAP 0.02UF | | 05-00203-82 |
| C149 | CER CAP 0.02UF | | 05-00203-82 |
| C150 | | | |
| C151 | CER CAP 30PF | | 05-00300-00 |
| C152 | E. CAP 1UF 50V | | 06-50105-00 |
| C153 | E. CAP 4.7UF 50V | | 06-50475-00 |
| C201 | E. CAP 0.22UF | | 06-50224-00 |
| C202 | MYLAR CAP 0.01UF | | 05-02103-10 |
| C203 | | | |
| C204 | CER CAP 0.02UF | | 05-00203-82 |
| C205 | E. CAP 100UF 10V | | 06-10107-00 |
| C206 | CER CAP 0.02UF | | 05-00203-82 |
| C207 | E. CAP 220UF 10V | | 06-10227-00 |
| C208 | CER CAP 0.001UF | | 05-00102-82 |
| C209 | | | |
| C210 | | | |
| C211 | CER CAP 0.02UF | | 05-00203-82 |
| C212 | CER CAP 15PF | | 05-00150-00 |
| C213 | CER CAP 15PF | | 05-00150-00 |
| C214 | CER CAP 0.02UF | | 05-00203-82 |
| C215 | E. CAP 47UF 10V | | 06-10476-00 |
| C216 | CER CAP 0.02UF | | 05-00203-82 |
| C217 | | | |
| C218 | E. CAP 47UF 10V | | 06-10476-00 |
| C219 | E. CAP 1UF 50V | | 06-50105-00 |
| C220 | | | |
| C221 | | | |
| C222 | CER CAP 0.01UF | | 05-00103-82 |
| C223 | CER CAP 0.01UF | | 05-00103-82 |
| C224 | CER CAP 0.02UF | | 05-00203-82 |
| C225 | CER CAP 0.001UF | | 05-00102-82 |
| C301 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C302 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C303 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C304 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C305 | E. CAP 100UF 10V | | 06-10107-00 |
| C306 | MYLAR CAP 0.022UF | | 05-02223-10 |
| C307 | E. CAP 1UF 50V | | 06-50105-00 |
| C308 | E. CAP 0.47UF 50V | | 06-50474-00 |
| C309 | E. CAP 1UF 50V | | 06-50105-00 |
| C310 | E. CAP 47UF 10V | | 06-10476-00 |
| C311 | E. CAP 1UF 50V | | 06-50105-00 |
| C312 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C313 | MYLAR CAP 0.0033UF | | 05-02332-10 |
| C314 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C315 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C316 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C317 | MYLAR CAP 0.001UF | | 05-02102-10 |
| C318 | MYLAR CAP 0.001UF | | 05-02102-10 |

| | | |
|------|--------------------|-------------|
| C319 | E. CAP 100UF 10V | 06-10107-00 |
| C320 | MYLAR CAP 0.022UF | 05-02223-10 |
| C321 | E. CAP 1UF 50V | 06-50105-00 |
| C322 | CER CAP 0.02UF | 05-00203-82 |
| C323 | E. CAP 220UF 10V | 06-10227-00 |
| C324 | E. CAP 2.2UF 50V | 06-50225-00 |
| C325 | E. CAP 1UF 50V | 06-50105-00 |
| C326 | E. CAP 47UF 10V | 06-10476-00 |
| C327 | E. CAP 22UF 10V | 06-10226-00 |
| C328 | E. CAP 1UF 50V | 06-50105-00 |
| C329 | MYLAR CAP 0.001UF | 05-02102-10 |
| C330 | MYLAR CAP 0.0033UF | 05-02332-10 |
| C331 | MYLAR CAP 0.001UF | 05-02102-10 |
| C332 | | |
| C333 | | |
| C334 | CER CAP 470PF | 05-00471-00 |
| C335 | CER CAP 0.02UF | 05-00203-82 |
| C336 | E. CAP 220UF 10V | 06-10227-00 |
| C337 | MYLAR CAP 0.001UF | 05-02102-10 |
| C338 | CER CAP 200PF | 05-00201-00 |
| C339 | MYLAR CAP 0.001UF | 06-02102-10 |
| C340 | E. CAP 33UF 10V | 06-10336-00 |
| C341 | E. CAP 220UF 10V | 06-10227-00 |
| C343 | E. CAP 1000UF 10V | 06-10108-00 |
| C345 | E. CAP 47UF 10V | 06-10476-00 |
| C346 | E. CAP 10UF 10V | 06-10106-00 |
| C401 | E. CAP 100UF 10V | 06-10107-00 |
| C402 | CER CAP 100PF | 05-00101-00 |
| C403 | CER CAP 100PF | 05-00101-00 |
| C404 | CER CAP 0.1UF | 05-00104-82 |
| C501 | | |
| C502 | CER CAP 390PF | 05-00391-00 |
| C503 | E. CAP 10UF 10V | 06-10106-00 |
| C504 | CER CAP 33PF | 05-00330-00 |
| C505 | CER CAP 33PF | 05-00330-00 |
| C506 | E. CAP 100UF 10V | 06-10107-00 |
| C507 | E. CAP 22UF NP | 06-16226-05 |
| C508 | | |
| C509 | E. CAP 100UF 10V | 06-10107-00 |
| C510 | E. CAP 100UF 10V | 06-10107-00 |
| C591 | CER CAP 0.02UF | 05-00203-82 |
| C592 | CER CAP 0.02UF | 05-00203-82 |
| C593 | CER CAP 0.02UF | 05-00203-82 |
| C601 | E. CAP 4.7UF 50V | 06-50475-00 |
| C602 | E. CAP 4.7UF 50V | 06-50475-00 |
| C603 | E. CAP 4.7UF 50V | 06-50475-00 |
| C604 | E. CAP 4.7UF 50V | 06-50475-00 |
| C605 | E. CAP 100UF 10V | 06-10107-00 |
| C606 | E. CAP 220UF 10V | 06-10227-00 |
| C607 | MYLAR CAP 0.022UF | 05-02223-10 |

| | | |
|------|--------------------|-------------|
| C608 | E. CAP 4.7UF 50V | 06-50475-00 |
| C609 | MYLAR CAP 0.001UF | 05-02102-10 |
| C610 | MYLAR CAP 0.033UF | 05-02333-10 |
| C611 | MYLAR CAP 0.0033UF | 05-02332-10 |
| C612 | MYLAR CAP 0.1UF | 05-02104-10 |
| C613 | MYLAR CAP 0.01UF | 05-02103-10 |
| C614 | E. CAP 0.33UF 50V | 06-50334-00 |
| C615 | MYLAR CAP 0.033UF | 05-02333-10 |
| C616 | E. CAP 0.47UF 50V | 06-50474-00 |
| C617 | E. CAP 4.7UF 50V | 06-50475-00 |
| C618 | E. CAP 4.7UF 50V | 06-50475-00 |
| C619 | MYLAR CAP 0.022UF | 06-02223-10 |
| C620 | MYLAR CAP 0.001UF | 05-02102-10 |
| C621 | MYLAR CAP 0.033UF | 05-02333-10 |
| C622 | MYLAR CAP 0.0033UF | 05-02332-10 |
| C623 | MYLAR CAP 0.1UF | 05-02104-10 |
| C624 | MYLAR CAP 0.01UF | 05-02103-10 |
| C625 | E. CAP 0.33UF 50V | 06-50334-00 |
| C626 | MYLAR CAP 0.033UF | 05-02333-10 |
| C627 | E. CAP 0.47UF 50V | 06-50474-00 |
| C628 | E. CAP 4.7UF 50V | 06-50475-00 |
| C629 | E. CAP 4.7UF 50V | 06-50475-00 |
| C630 | E. CAP 0.22UF 50V | 06-50224-00 |
| C631 | E. CAP 4.7UF 50V | 06-50475-00 |
| C632 | E. CAP 100UF 10V | 06-10107-00 |
| C633 | E. CAP 4.7UF 50V | 06-50475-00 |
| C634 | E. CAP 0.22UF 50V | 06-50474-00 |
| C635 | E. CAP 4.7UF 50V | 06-50475-00 |
| C636 | MYLAR CAP 0.0039UF | 05-02392-10 |
| C637 | E. CAP 10UF 10V | 06-10106-00 |
| C638 | E. CAP 100UF 10V | 06-10107-00 |
| C639 | E. CAP 4.7UF 50V | 06-50475-00 |
| C640 | E. CAP 4.7UF 50V | 06-50475-00 |
| C641 | E. CAP 100UF 10V | 06-10107-00 |
| C642 | E. CAP 100UF 10V | 06-10107-00 |
| C643 | MYLAR CAP 0.0039UF | 05-02392-10 |
| C644 | E. CAP 47UF 10V | 06-10476-00 |
| C645 | E. CAP 220UF 10V | 06-10227-00 |
| C701 | E. CAP 2.2UF 50V | 06-50225-00 |
| C702 | CER CAP 500PF | 05-00501-00 |
| C703 | E. CAP 47UF 10V | 06-10476-00 |
| C704 | E. CAP 4.7UF 50V | 06-50475-00 |
| C705 | E. CAP 2.2UF 50V | 06-50225-00 |
| C706 | CER CAP 500PF | 05-00501-00 |
| C707 | E. CAP 47UF 10V | 06-10476-00 |
| C708 | E. CAP 47UF 10V | 06-10476-00 |
| C709 | E. CAP 4700UF 35V | 06-35478-00 |
| C710 | E. CAP 1000UF 16V | 06-16108-00 |
| C711 | MYLAR CAP 0.15UF | 05-02154-10 |
| C712 | MYLAR CAP 0.15UF | 05-02154-10 |

| | | |
|-------|-----------------------|-------------|
| C713 | E. CAP 1000UF 16V | 06-16108-00 |
| C714 | E. CAP 47UF 10V | 06-10476-00 |
| C715 | E. CAP 0.22UF 50V | 06-50224-00 |
| C716 | E. CAP 100UF 10V | 06-10107-00 |
| C717 | CER CAP 0.02UF | 05-00203-82 |
| C718 | E. CAP 100UF 10V | 06-10107-00 |
| C719 | CER CAP 0.02UF | 05-00203-82 |
| C720 | E. CAP 100UF 10V | 06-10107-00 |
| C721 | | |
| C722 | E. CAP 100UF 10V | 06-10107-00 |
| C723 | CER CAP 0.02UF | 05-00203-82 |
| C724 | E. CAP 220UF 10V | 06-10227-00 |
| C725 | E. CAP 10UF 10V | 06-10106-00 |
| C726 | CER CAP 0.02UF | 05-00203-82 |
| C727 | E. CAP 100UF 10V | 06-10107-00 |
| C728 | | |
| C729 | E. CAP 100UF 10V | 06-10107-00 |
| C730 | CER CAP 0.02UF | 05-00203-82 |
| C731 | E. CAP 100UF 10V | 06-10107-00 |
| C732 | | |
| C733 | E. CAP 100UF 10V | 06-10107-00 |
| C734 | E. CAP 2200UF 25V | 06-25228-00 |
| C736 | CER CAP 0.02UF | 05-00203-82 |
| C737 | CER CAP 0.02UF | 05-00203-82 |
| C738 | CER CAP 0.02UF | 05-00203-82 |
| C739 | CER CAP 0.02UF | 05-00203-82 |
| C740 | CER CAP 0.02UF | 05-00203-82 |
| C741 | CER CAP 0.02UF | 05-00203-82 |
| C742 | CER CAP 0.02UF | 05-00203-82 |
| TC101 | TRIMMER CAP 10PF 3PIN | 05-08100-03 |
| TC102 | TRIMMER CAP 10PF 3PIN | 05-08100-03 |

Resistor (All are carbon film, 1/4w, +5%)

| Ref. NO. | Description | Mfr's Part No. |
|----------|-------------|----------------|
| R101 | 47K OHM | 07-05473-00 |
| R102 | 33 OHM | 07-05330-00 |
| R103 | 18 OHM | 07-05180-00 |
| R104 | 47K OHM | 07-05473-00 |
| R105 | 56 OHM | 07-05560-00 |
| R106 | 150K OHM | 07-05154-00 |
| R107 | 1K OHM | 07-05102-00 |
| R108 | 47 OHM | 07-05470-00 |
| R109 | 33K OHM | 07-05333-00 |
| R110 | | |
| R111 | 100 OHM | 07-05101-00 |
| R112 | 22K OHM | 07-05223-00 |
| R113 | 27K OHM | 07-05273-00 |
| R114 | 27K OHM | 07-05273-00 |
| R115 | 12K OHM | 07-05123-00 |
| R116 | 12K OHM | 07-05123-00 |

| | | |
|------|----------|-------------|
| R117 | 10K OHM | 07-05103-00 |
| R118 | 10K OHM | 07-05103-00 |
| R119 | 680 OHM | 07-05681-00 |
| R120 | 68K OHM | 07-05683-00 |
| R121 | 68K OHM | 07-05683-00 |
| R122 | 10K OHM | 07-05103-00 |
| R123 | 220 OHM | 07-05221-00 |
| R124 | 10K OHM | 07-05103-00 |
| R130 | 10K OHM | 07-05103-00 |
| R131 | 10K OHM | 07-05103-00 |
| R132 | 5.6K OHM | 07-05562-00 |
| R133 | 12K OHM | 07-05123-00 |
| R134 | 10K OHM | 07-05103-00 |
| R201 | 1K OHM | 07-05102-00 |
| R202 | 10 OHM | 07-05100-00 |
| R203 | 220K OHM | 07-05224-00 |
| R204 | 180 OHM | 07-05181-00 |
| R205 | 10K OHM | 07-05103-00 |
| R206 | 4.7K OHM | 07-00472-00 |
| R207 | 10K OHM | 07-05103-00 |
| R208 | | |
| R209 | 1K OHM | 07-05102-00 |
| R210 | 150K OHM | 07-05154-00 |
| R211 | | |
| R212 | 220 OHM | 07-05221-00 |
| R213 | 220 OHM | 07-05221-00 |
| Q204 | 4.7 OHM | 07-05047-00 |
| R215 | 4.7 OHM | 07-05047-00 |
| R216 | 22K OHM | 07-05223-00 |
| R217 | 15K OHM | 07-05153-00 |
| R218 | 1K OHM | 07-05102-00 |
| R219 | 220K OHM | 07-05224-00 |
| R220 | 10K OHM | 07-05103-00 |
| R221 | 220K OHM | 07-05224-00 |
| R222 | 220K OHM | 07-05224-00 |
| R223 | 220K OHM | 07-05224-00 |
| R301 | 10 OHM | 07-05100-00 |
| R302 | 100 OHM | 07-05101-00 |
| R303 | 8.2K OHM | 07-05822-00 |
| R304 | 6.8K OHM | 07-05682-00 |
| R305 | 180K OHM | 07-05184-00 |
| R306 | 12K OHM | 07-05123-00 |
| R307 | 10K OHM | 07-05103-00 |
| R308 | 100K OHM | 07-05104-00 |
| R309 | 180K OHM | 07-05184-00 |
| R310 | 330K OHM | 07-05334-00 |
| R311 | 100 OHM | 07-05101-00 |
| R312 | 680 OHM | 07-05681-00 |
| R313 | 2.7K OHM | 07-05272-00 |
| R314 | 10K OHM | 07-05103-00 |

| | | |
|------|--------------------------------|-------------|
| R315 | 10K OHM | 07-05103-00 |
| R316 | 10K OHM | 07-05103-00 |
| R317 | 22K OHM | 07-05223-00 |
| R318 | 10 OHM | 07-05100-00 |
| R319 | 100 OHM | 07-05101-00 |
| R320 | 8.2K OHM | 07-05822-00 |
| R321 | 6.8K OHM | 07-05682-00 |
| R322 | 180K OHM | 07-05184-00 |
| R323 | 12K OHM | 07-05123-00 |
| R324 | 180K OHM | 07-05184-00 |
| R325 | 330K OHM | 07-05334-00 |
| R326 | 100 OHM | 07-05101-00 |
| R327 | 330K OHM | 07-05334-00 |
| R328 | 680 OHM | 07-05681-00 |
| R329 | 100 OHM | 07-05101-00 |
| R330 | 10K OHM | 07-05103-00 |
| R331 | 2.7K OHM - | 07-05272-00 |
| R332 | 10K OHM | 07-05103-00 |
| R333 | 22K OHM | 07-05223-00 |
| R336 | 10K OHM | 07-05103-00 |
| R337 | 22 OHM | 07-05220-00 |
| R338 | 100 OHM | 07-05101-00 |
| R339 | 8.2K OHM | 07-05822-00 |
| R340 | 22K OHM | 07-05223-00 |
| R341 | 10K OHM | 07-05103-00 |
| R342 | | |
| R343 | | |
| R344 | | |
| R345 | 10 OHM | 07-05100-00 |
| R346 | 330 OHM | 07-05331-00 |
| R347 | 5.6K OHM | 07-05562-00 |
| R348 | 1.2K OHM | 07-05122-00 |
| R349 | SEMI-FIXED VR2K d8MM 3-PIN 'H' | 17-31202-08 |
| R350 | | |
| R351 | 1.8K OHM | 07-05182-00 |
| R352 | 15K OHM | 07-05153-00 |
| R353 | 15K OHM | 07-05153-00 |
| R354 | 10K OHM | 07-05103-00 |
| R355 | 10K OHM | 07-05103-00 |
| R356 | 10K OHM | 07-05103-00 |
| R357 | 10K OHM | 07-05103-00 |
| R358 | 10K OHM | 07-05103-00 |
| R361 | 1K OHM | 07-05102-00 |
| R401 | 1 OHM | 07-05010-00 |
| R402 | 10K OHM | 07-05103-00 |
| R403 | 100 OHM | 07-05101-00 |
| R501 | | |
| R502 | 68K OHM | 07-05683-00 |
| R503 | 68K OHM | 07-05683-00 |
| R504 | | |

| | | | |
|------|-----------|--|-------------|
| R505 | 33K OHM | | 07-05333-00 |
| R506 | 100K OHM | | 07-05104-00 |
| R507 | 68K OHM | | 07-05683-00 |
| R508 | 68K OHM | | 07-05683-00 |
| R509 | 820 OHM | | 07-05821-00 |
| R510 | 820 OHM | | 07-05821-00 |
| R511 | | | |
| R512 | | | |
| R513 | 1K OHM | | 07-05102-00 |
| R514 | 10K OHM | | 07-05103-00 |
| R515 | 10K OHM | | 07-05103-00 |
| R516 | 10K OHM | | 07-05103-00 |
| R517 | 1M OHM | | 07-05105-00 |
| R518 | 2.2K OHM | | 07-05222-00 |
| R519 | 2.2K OHM | | 07-05222-00 |
| R520 | 10K OHM | | 07-05103-00 |
| R521 | 10K OHM - | | 07-05103-00 |
| R522 | | | |
| R523 | | | |
| R524 | 10K OHM | | 07-05103-00 |
| R525 | 10K OHM | | 07-05103-00 |
| R526 | 680 OHM | | 07-05681-00 |
| R527 | 10 OHM | | 07-05100-00 |
| R528 | 10K OHM | | 07-05103-00 |
| R529 | 10K OHM | | 07-05103-00 |
| R530 | 10K OHM | | 07-05103-00 |
| R531 | 10K OHM | | 07-05103-00 |
| R532 | 10K OHM | | 07-05103-00 |
| R533 | 10K OHM | | 07-00103-00 |
| R534 | 10K OHM | | 07-05103-00 |
| R535 | 10K OHM | | 07-05103-00 |
| R536 | 4.7K OHM | | 07-05472-00 |
| R537 | 4.7K OHM | | 07-05472-00 |
| R538 | 1K OHM | | 07-05102-00 |
| R539 | 1K OHM | | 07-05102-00 |
| R540 | 1K OHM | | 07-05102-00 |
| R541 | 1K OHM | | 07-05102-00 |
| R542 | | | |
| R543 | 10 OHM | | 07-05100-00 |
| R544 | 1K OHM | | 07-05102-00 |
| R545 | 100 OHM | | 07-05101-00 |
| R546 | 10K OHM | | 07-05103-00 |
| R547 | 10K OHM | | 07-05103-00 |
| R548 | 100K OHM | | 07-05104-00 |
| R549 | 22K OHM | | 07-05223-00 |
| R550 | 1K OHM | | 07-05102-00 |
| R551 | 1K OHM | | 07-05102-00 |
| R552 | 1K OHM | | 07-05102-00 |
| R601 | 2.2K OHM | | 07-05222-00 |
| R602 | 560K OHM | | 07-05564-00 |

| | | | |
|------|----------|--|-------------|
| R603 | 4.7K OHM | | 07-05472-00 |
| R604 | 220 OHM | | 07-05221-00 |
| R605 | 4.7K OHM | | 07-05472-00 |
| R606 | 220 OHM | | 07-05221-00 |
| R607 | 560K OHM | | 07-05564-00 |
| R608 | 2.2K OHM | | 07-05222-00 |
| R609 | 560 OHM | | 07-05561-00 |
| R610 | 220 OHM | | 07-05221-00 |
| R611 | 2.2K OHM | | 07-05222-00 |
| R612 | 680 OHM | | 07-05681-00 |
| R613 | 1K OHM | | 07-05102-00 |
| R614 | 680 OHM | | 07-05681-00 |
| R615 | 2.2K OHM | | 07-05222-00 |
| R616 | 680 OHM | | 07-05681-00 |
| R617 | 1K OHM | | 07-05102-00 |
| R618 | 680 OHM | | 07-05681-00 |
| R619 | 12K OHM | | 07-05123-00 |
| R620 | 560K OHM | | 07-05564-00 |
| R621 | 270 OHM | | 07-05271-00 |
| R622 | 2.2K OHM | | 07-05222-00 |
| R623 | 4.7K OHM | | 07-05472-00 |
| R624 | 3.3K OHM | | 07-05332-00 |
| R625 | 120K OHM | | 07-05124-00 |
| R626 | 4.7K OHM | | 07-05472-00 |
| R627 | 12K OHM | | 07-05123-00 |
| R628 | 560K OHM | | 07-05564-00 |
| R629 | 270 OHM | | 07-05271-00 |
| R630 | 2.2K OHM | | 07-05222-00 |
| R631 | 220 OHM | | 07-05221-00 |
| R632 | 4.7K OHM | | 07-05472-00 |
| R633 | 3.3K OHM | | 07-05332-00 |
| R634 | 120K OHM | | 07-05124-00 |
| R635 | 4.7K OHM | | 07-05472-00 |
| R636 | 270K OHM | | 07-05274-00 |
| R637 | 270K OHM | | 07-05274-00 |
| R638 | 120K OHM | | 07-05124-00 |
| R639 | 47K OHM | | 07-05473-00 |
| R640 | 100 OHM | | 07-05101-00 |
| R641 | 3.3K OHM | | 07-05332-00 |
| R642 | 680K OHM | | 07-05684-00 |
| R643 | 100 OHM | | 07-05101-00 |
| R644 | 100 OHM | | 07-05101-00 |
| R645 | 6.8K OHM | | 07-05682-00 |
| R646 | 120K OHM | | 07-05124-00 |
| R647 | 100 OHM | | 07-05101-00 |
| R648 | 56 OHM | | 07-05560-00 |
| R649 | 56 OHM | | 07-05560-00 |
| R650 | 56 OHM | | 07-05560-00 |
| R651 | 56 OHM | | 07-05560-00 |
| R652 | 47K OHM | | 07-05473-00 |

| | | | |
|------|---------------|--|-------------|
| R653 | 4.7K OHM | | 07-05472-00 |
| R701 | 470 OHM | | 07-05471-00 |
| R702 | 10K OHM | | 07-05103-00 |
| R703 | 470 OHM | | 07-05471-00 |
| R704 | 10K OHM | | 07-05103-00 |
| R705 | 5.6K OHM | | 07-05562-00 |
| R706 | 10K OHM | | 07-05103-00 |
| R707 | 2.2 OHM | | 07-05022-00 |
| R708 | 2.2 OHM | | 07-05022-00 |
| R709 | 220 OHM | | 07-05221-00 |
| R710 | 220 OHM | | 07-05221-00 |
| R711 | 10K OHM | | 07-05103-00 |
| R712 | 56K OHM | | 07-05563-00 |
| R713 | 10K OHM | | 07-05103-00 |
| R714 | 47K OHM | | 07-05473-00 |
| R715 | 4.7 OHM 1/2W | | 07-05047-10 |
| R716 | 220 OHM | | 07-05221-00 |
| R717 | 1 OHM | | 07-05010-00 |
| R718 | 220 OHM | | 07-05221-00 |
| R719 | 1 OHM 1/2W | | 07-05010-10 |
| R720 | 100K OHM | | 07-05104-00 |
| R721 | 1.5K OHM | | 07-05152-00 |
| R722 | 56K OHM | | 07-05563-00 |
| R723 | 4.7 OHM | | 07-05047-00 |
| R724 | 1K OHM | | 07-05102-00 |
| R725 | 4.7 OHM 1/2W | | 07-05047-10 |
| R726 | 1K OHM | | 07-05102-00 |
| R727 | 3.3M OHM 1/2W | | 07-05335-10 |
| R728 | | | |
| R729 | 100K OHM | | 07-05104-00 |
| R730 | 1K OHM | | 07-05102-00 |
| R731 | 10K OHM | | 07-05103-00 |
| R732 | 100K OHM | | 07-05104-00 |

Semiconductors

| | | | |
|-------|-------------------------------|--|-------------|
| IC101 | TA7358AP TOSHIBA | | 03-07358-16 |
| IC102 | TA8132AN TOSHIBA | | 03-08132-02 |
| IC201 | TC9307AF-014 TOSHIBA | | 03-09307-00 |
| IC301 | TA8189N TOSHIBA | | 03-08189-00 |
| IC401 | UPD6125AG-876 NEC | | 03-06125-00 |
| IC501 | TS-9201 SANYO | | 03-09201-01 |
| IC601 | BA3822LS ROHM | | 03-03822-00 |
| IC603 | BA3830S ROHM | | 03-03830-00 |
| IC603 | LC7561 SANYO | | 03-07561-00 |
| IC701 | TA8216H TOSHIBA | | 03-08216-00 |
| D101 | DIODE 1N4148 | | 02-04148-00 |
| D102 | TUN DIODE SVC201SPA SANYO | | 02-00201-00 |
| D103 | TUN DIODE SVC201SPA SANYO | | 02-00201-00 |
| D104 | DIODE 1N4148 | | 02-04148-00 |
| D105 | TUN DIODE SVC321SPA-C-2 SANYO | | 02-00321-00 |

| | | |
|------|----------------------------------|--------------|
| D106 | TUN DIODE SVC321SPA-C-2 SANYO | 02-00321-00 |
| D107 | DIODE 1N4148 | 02-04148-00 |
| D201 | LED d3MM RED (LT0311G-41 L=24MM) | 02-30041-02G |
| D202 | LED d3MM RED (LT0311G-41 L=24MM) | 02-30041-02G |
| D203 | LED d3MM RED (LT0311G-41 L=24MM) | 02-30041-02G |
| D204 | DIODE 1N4148 | 02-04148-00 |
| D205 | | |
| D206 | ZENER DIODE 12V 0.5W | 02-50120-00 |
| D207 | DIODE 1N4148 | 02-04148-00 |
| D208 | | |
| D209 | DIODE 1N4148 | 02-04148-00 |
| D210 | DIODE 1N4148 | 02-04148-00 |
| D211 | DIODE 1N4148 | 02-04148-00 |
| D212 | DIODE 1N4148 | 02-04148-00 |
| D213 | DIODE 1N4148 | 02-04148-00 |
| D214 | DIODE 1N4148 | 02-04148-00 |
| D215 | DIODE 1N4148 | 02-04148-00 |
| D216 | DIODE 1N4148 | 02-04148-00 |
| D217 | DIODE 1N4148 | 02-04148-00 |
| D218 | DIODE 1N4148 | 02-04148-00 |
| D219 | DIODE 1N4148 | 02-04148-00 |
| D220 | DIODE 1N4148 | 02-04148-00 |
| D221 | DIODE 1N4148 | 02-04148-00 |
| D222 | DIODE 1N4148 | 02-04148-00 |
| D301 | DIODE 1N4148 | 02-04148-00 |
| D302 | DIODE 1N4148 | 02-04148-00 |
| D303 | DIODE 1N4148 | 02-04148-00 |
| D304 | DIODE 1N4001 | 02-04148-00 |
| D305 | DIODE 1N4001 | 02-04148-00 |
| D306 | DIODE 1N4148 | 02-04148-00 |
| D307 | DIODE 1N4148 | 02-04148-00 |
| D308 | ZENER DIODE 9.1V 0.5W | 02-50091-00 |
| D401 | INFRARED LED | 02-00102-00 |
| D501 | LED d3MM RED (LT0311G-41 L=24MM) | 02-30041-02G |
| D502 | LED d3MM RED (LT0311G-41 L=24MM) | 02-30041-02G |
| D503 | LED d3MM RED (LT0311G-41 L=24MM) | 02-30041-02G |
| D504 | LED d3MM RED (LT0311G-41 L=24MM) | 02-30041-02G |
| D505 | DIODE 1N4148 | 02-04148-00 |
| D506 | LED 2X5MM RED (LT5311G-41) L=22 | 02-20005-02G |
| D507 | LED TRIANGLE RED L311HD (K.B.) | 02-00311-02 |
| D508 | LED TRIANGLE GRN L-311GD | 02-00003-05 |
| D509 | LED 2X5MM LS63ADT YEL S.SCREEN | 02-20005-04S |
| D510 | DIODE 1N4148 | 02-04148-00 |
| D601 | DIODE 1N4148 | 02-04148-00 |
| D701 | DIODE 1N4148 | 02-04148-00 |
| D702 | DIODE 1N4148 | 02-04148-00 |
| D703 | DIODE 1N4148 | 02-04148-00 |
| D704 | ZENER DIODE 9.1V 0.5W | 02-50091-00 |
| D705 | ZENER DIODE 9.1V 0.5W | 02-50091-00 |
| D706 | ZENER DIODE 6.8V 0.5W | 02-50068-00 |

| | | | |
|------|-----------------------|--|--------------|
| D707 | ZENER DIODE 5.6V 0.5W | | 02-50056-00 |
| D708 | DIODE 1N5400 | | 02-05400-00 |
| D709 | DIODE 1N5400 | | 02-05400-00 |
| D710 | DIODE 1N5400 | | 02-05400-00 |
| D711 | DIODE 1N5400 | | 02-05400-00 |
| D712 | DIODE 1N4001 | | 02-04001-00 |
| D713 | DIODE 1N4001 | | 02-04001-00 |
| D714 | DIODE 1N4001 | | 02-04001-00 |
| D715 | DIODE 1N4001 | | 02-04001-00 |
| D716 | | | |
| Q101 | TR. 9018G SAM SUNG | | 01-09018-07 |
| Q102 | TR. 9014C ITT | | 01-09014-03I |
| Q103 | | | |
| Q104 | TR. 9014C ITT | | 01-09014-03I |
| Q105 | TR. 9014C ITT | | 01-09014-03I |
| Q201 | TR. 9014C ITT | | 01-09014-03I |
| Q202 | TR. 9014C ITT | | 01-09014-03I |
| Q203 | TR. 9018G SAM SUNG | | 01-09018-07 |
| Q204 | | | |
| Q205 | TR. 9014C ITT | | 01-09014-03I |
| Q206 | TR. 9014C ITT | | 01-09014-03I |
| Q301 | TR. 9014C ITT | | 01-09014-03I |
| Q302 | TR. 9014C ITT | | 01-09014-03I |
| Q303 | TR. 9014C ITT | | 01-09014-03I |
| Q304 | TR. 9014C ITT | | 01-09014-03I |
| Q305 | | | |
| Q306 | TR. 9013G SAM SUNG | | 01-09013-07 |
| Q307 | TR. 8050C HITACHI | | 01-08050-03 |
| Q308 | TR. 9014C ITT | | 01-09014-03I |
| Q309 | TR. 9014C ITT | | 01-09014-03I |
| Q310 | TR. 9014C ITT | | 01-09014-03I |
| Q311 | TR. 9014C ITT | | 01-09014-03I |
| Q312 | TR. 9014C ITT | | 01-09014-03I |
| Q401 | TR. 9014C ITT | | 01-09014-03I |
| Q501 | | | |
| Q502 | TR. 9012G SAM SUNG | | 01-09012-07 |
| Q503 | TR. 9012G SAM SUNG | | 01-09012-07 |
| Q504 | TR. 9014C ITT | | 01-09014-03I |
| Q505 | TR. 9014C ITT | | 01-09014-03I |
| Q506 | TR. 9014C ITT | | 01-09014-03I |
| Q507 | TR. 9014C ITT | | 01-09014-03I |
| Q508 | TR. 9014C ITT | | 01-09014-03I |
| Q509 | TR. 9014C ITT | | 01-09014-03I |
| Q510 | TR. 9014C ITT | | 01-09014-03I |
| Q601 | TR. 9014C ITT | | 01-09014-03I |
| Q602 | TR. 9014C ITT | | 01-09014-03I |
| Q603 | TR. 9014C ITT | | 01-09014-03I |
| Q604 | TR. 9014C ITT | | 01-09014-03I |
| Q605 | TR. 9014C ITT | | 01-09014-03I |
| Q701 | TR. 9014C ITT | | 01-09014-03I |

| | | |
|------|-----------------------|--------------|
| Q702 | TR. 9014C ITT | 01-09014-03I |
| Q703 | TR. 9014C ITT | 01-09014-03I |
| Q704 | TR. 9014C ITT | 01-09014-03I |
| Q705 | TR. 8050C HITACHI | 01-08050-03 |
| Q706 | TR. 8050C HITACHI | 01-08050-03 |
| Q707 | TR. KSA928-Y SAM SUNG | 01-00928-00 |
| Q708 | TR. 9014C ITT | 01-09014-03I |
| Q709 | TR. 8050C HITACHI | 01-08050-03 |
| Q710 | TR. 9013G SAM SUNG | 01-09013-07 |
| Q711 | TR. 9014C ITT | 01-09014-03I |
| Q712 | TR. 8050C HITACHI | 01-08050-03 |
| Q713 | TR. 9014C ITT | 01-09014-03I |

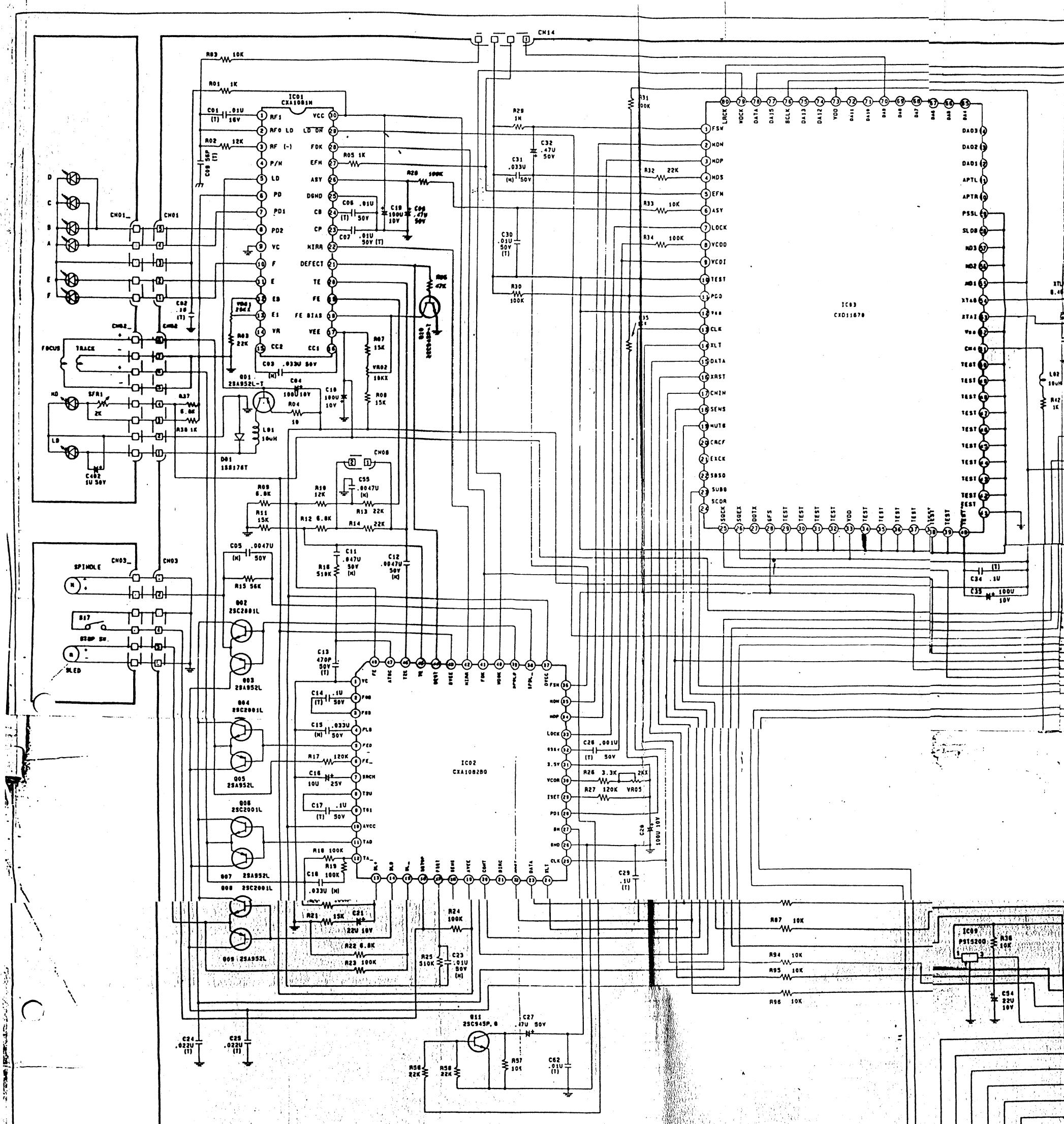
MISC.

| | | |
|--------|---------------------------------|--------------|
| L101 | 7MM IFT FM ANT 807152 COILS | 08-77152-00 |
| L102 | FM COIL d5MM X 3.5T 0.8MM CW | 09-35050-01 |
| L103 | FM COIL d4.5MM X 3.5T 0.8MM CW | 09-35045-01 |
| L104 | AM COIL 65:12T L=100MM M5 | 09-06512-10 |
| L201 | CHOKE COIL 12MH d6X8MM | 09-12000-00 |
| T101 | 10MM IFT ORG 767-545SMD 3-5621 | 08-00545-03 |
| T102 | 10MM AM IFT YEL 900-029 SUMIDA | 08-00029-04 |
| T103 | 10MM IFT RED 1A1014N | 08-01014-02 |
| T104 | 10MM IFT PNK 234B | 08-00234-07 |
| T701 | | |
| T301 | 10MM REC. BIAS OSC 4313-H053SMD | 08-00053-00 |
| CF101 | CER FILTER SFE10.7MS3A (RED) | 09-50107-20 |
| CF102 | CER FILTER SFU450B | 09-50450-00 |
| X102 | CER RES. CSB456F18 | 09-50456-00 |
| X201 | CRYSTAL 75KHz (DT-381) | 04-00075-00 |
| X401 | CER RES. (HR Z455K) HOORAY | 09-50455-00H |
| X501 | CER RES. DRHF4.00 'TOKO' | 09-50040-00 |
| LCD201 | | |
| LCD501 | | |
| LCD601 | | |
| S501 | INFRARED RECEIVER SBX-1610-52 | 02-61610-52 |
| LP201 | LAMP 5V 100MA 4X8MM | 13-00206-00 |
| LP202 | LAMP 5V 100MA 4X8MM | 13-00206-00 |
| LP501 | LAMP 5V 100MA 4X8MM | 13-00206-00 |
| LP502 | LAMP 5V 100MA 4X8MM | 13-00206-00 |
| LP601 | LAMP 5V 100MA 4X8MM | 13-00206-00 |
| LP602 | LAMP 5V 100MA 4X8MM | 13-00206-00 |
| SW101 | P. SW MINI-15T2F-d3.2H T. LOCK | 16-44303-00 |
| SW201 | TACT SW 1P2T JTM-1105A | 16-10102-03J |
| SW202 | TACT SW 1P2T JTM-1105A | 16-10102-03J |
| SW203 | TACT SW 1P2T JTM-1105A | 16-10102-03J |
| SW204 | TACT SW 1P2T JTM-1105A | 16-10102-03J |
| SW205 | TACT SW 1P2T JTM-1105A | 16-10102-03J |
| SW206 | TACT SW 1P2T JTM-1105A | 16-10102-03J |
| SW207 | TACT SW 1P2T JTM-1105A | 16-10102-03J |
| SW208 | TACT SW 1P2T JTM-1105A | 16-10102-03J |

UL VERSION

VDE VERSION

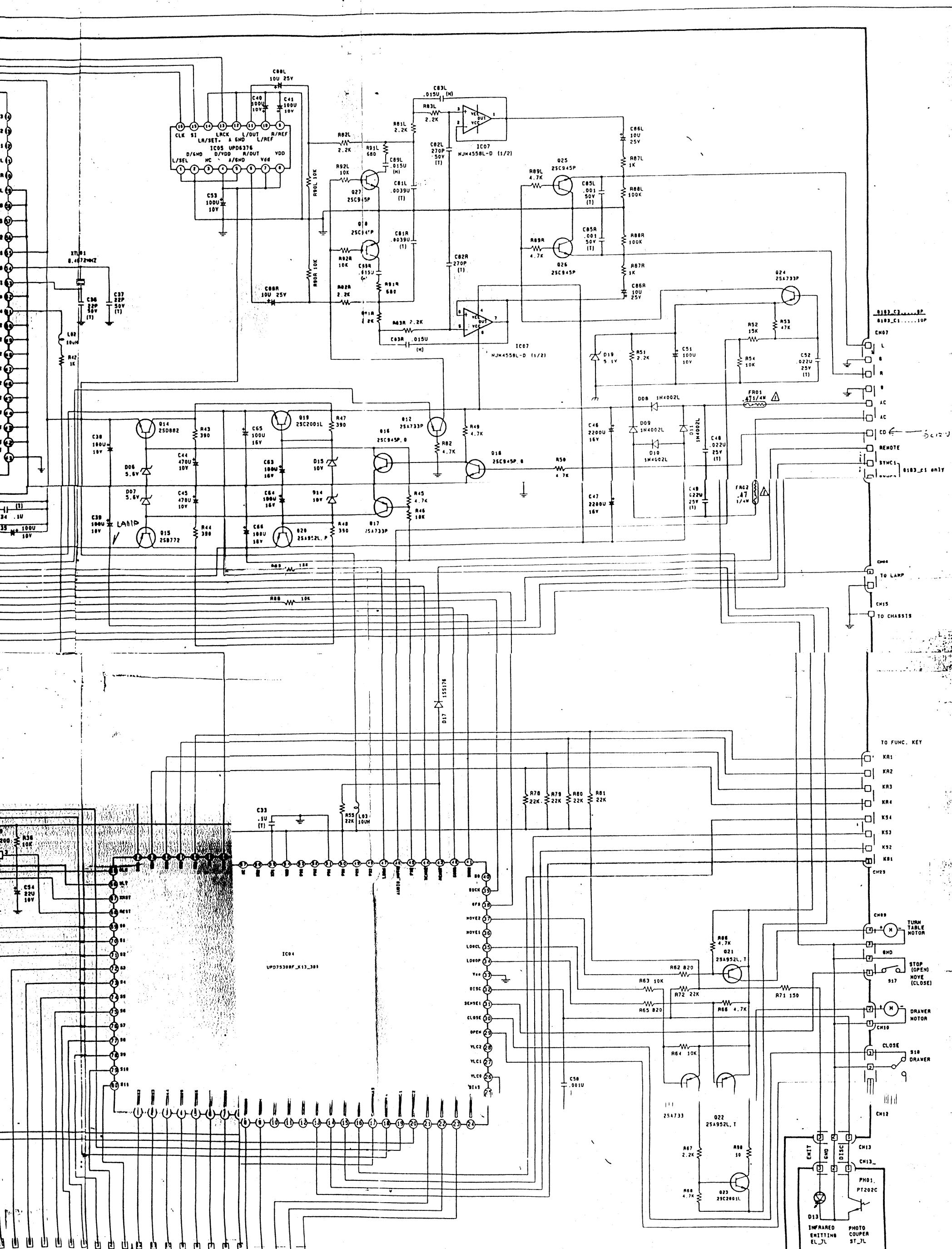
M&S VERSION

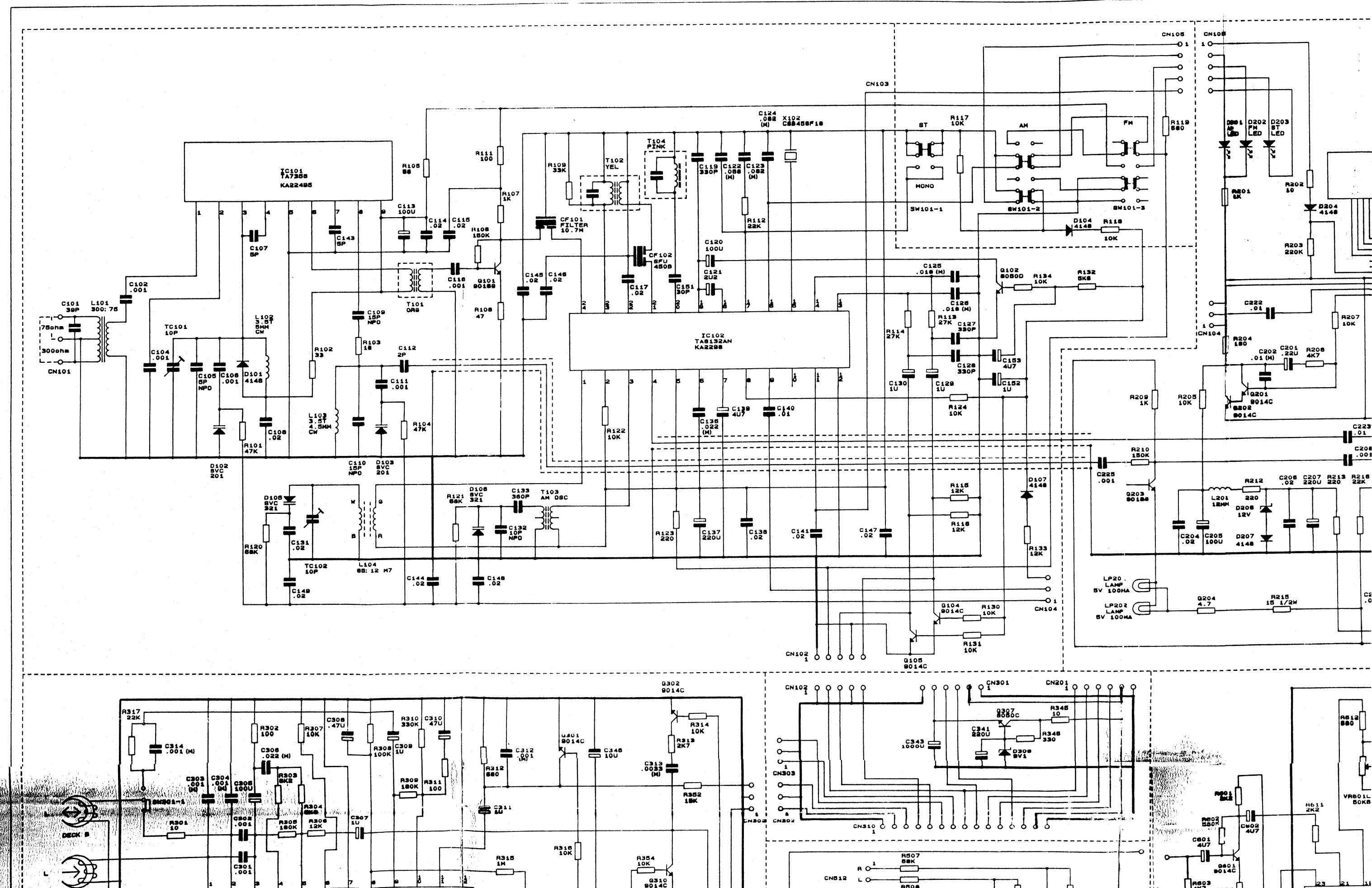


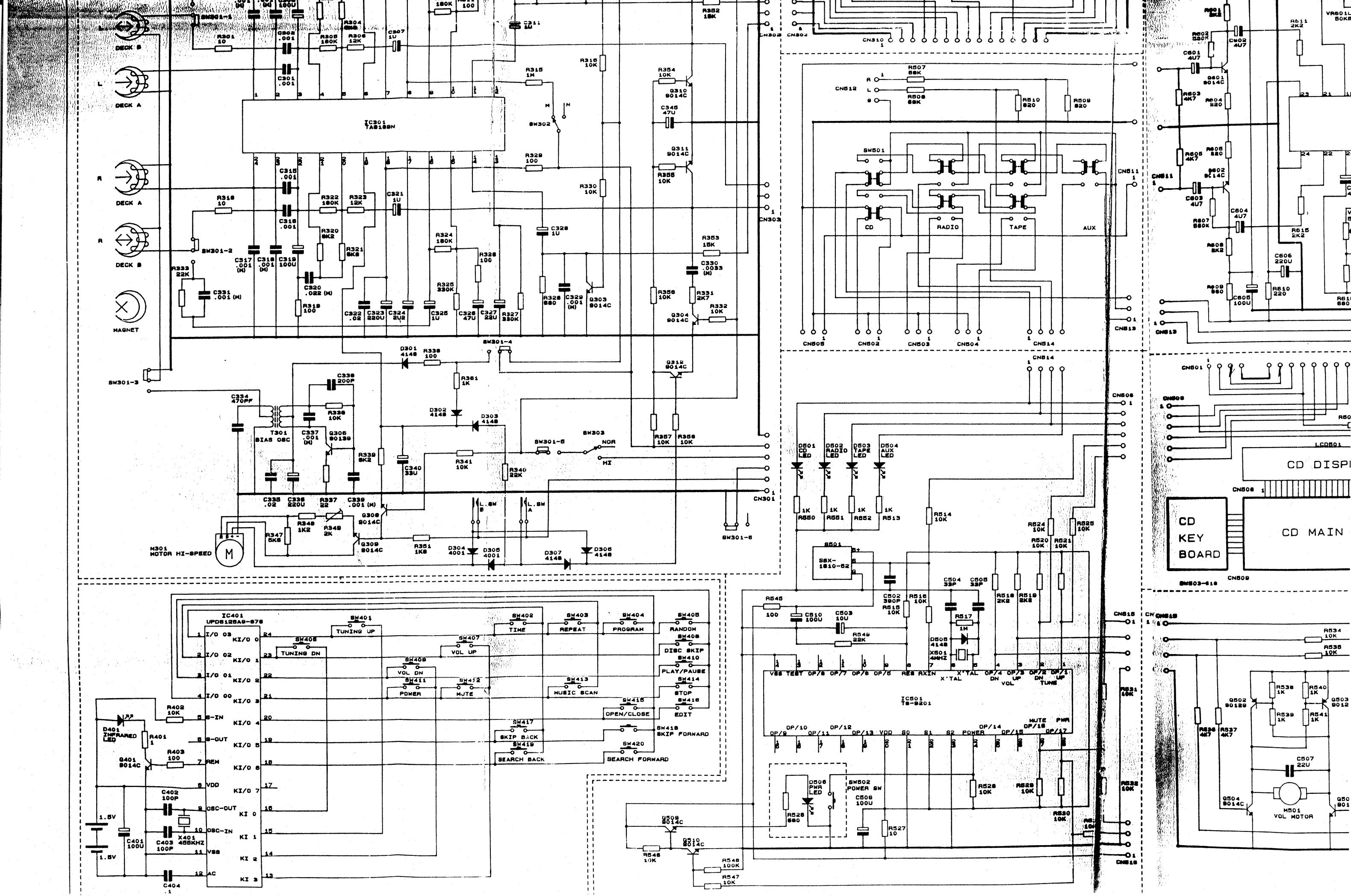
ALTERATION
MAY 18 '93

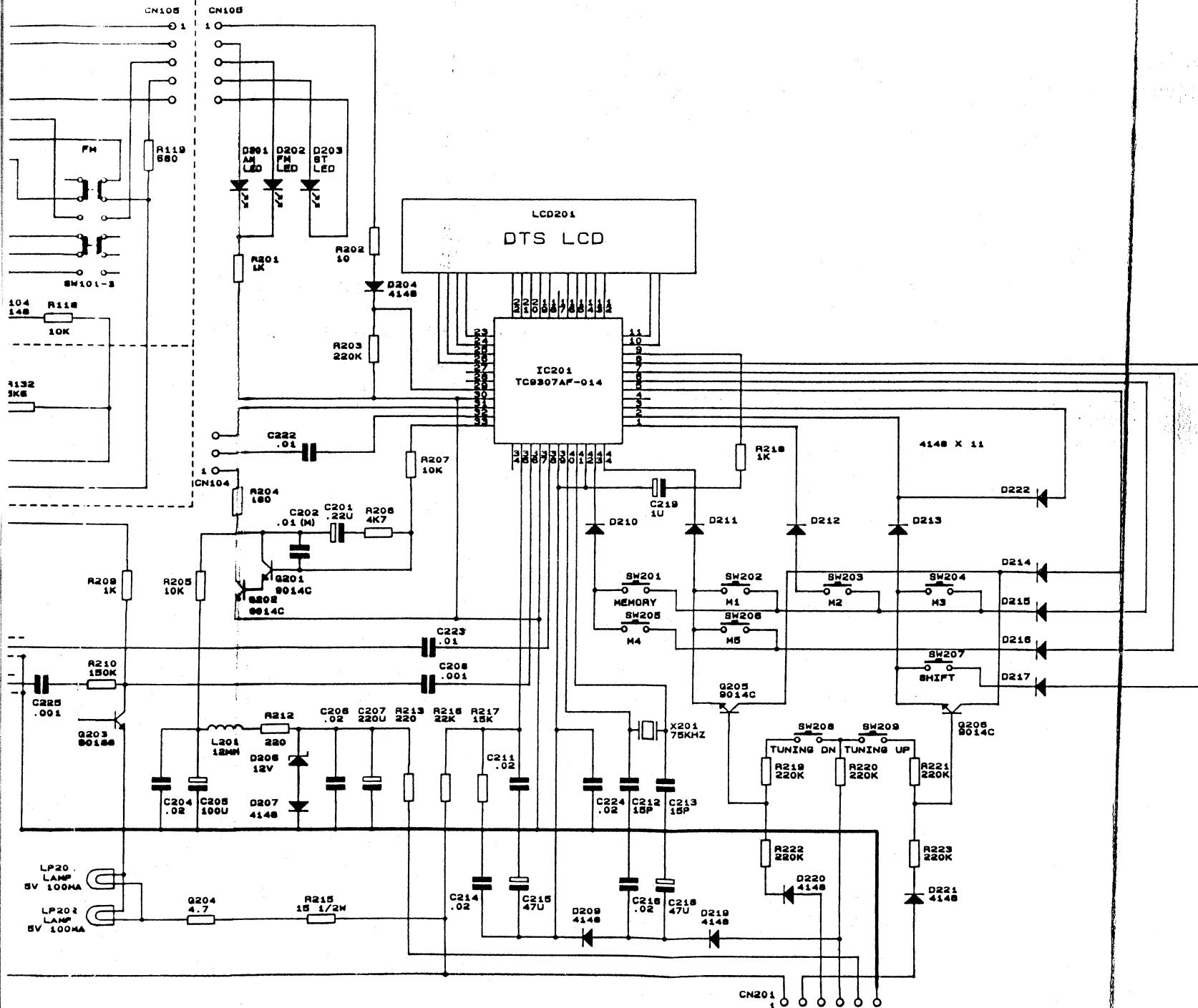
MODEL X.T4

CD SERVO SCHEMATIC.





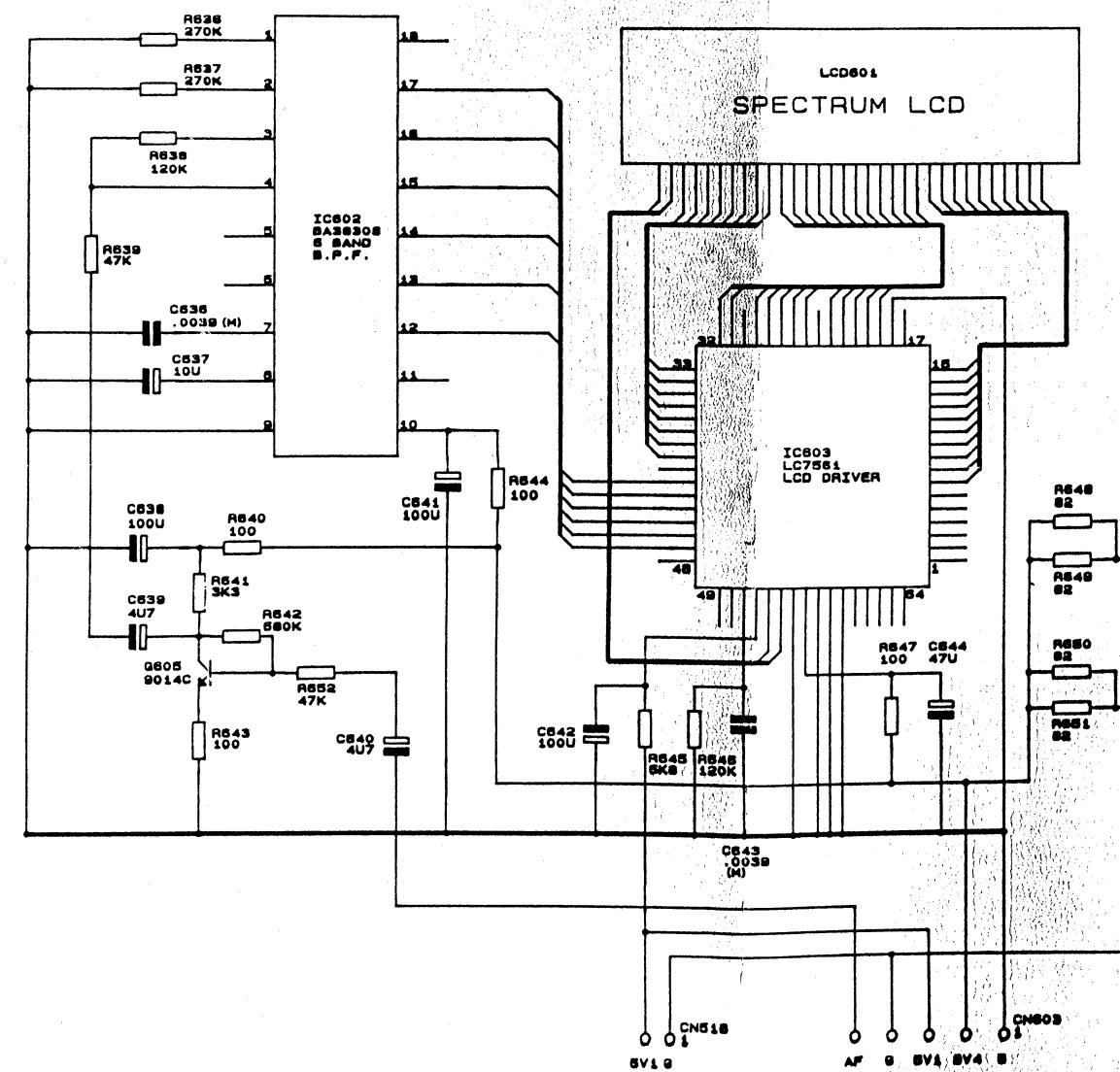




WARNING

AFTER COMPLETING THE SERVICING OF THIS PRODUCT AND BEFORE RETURNING IT TO YOUR CUSTOMER MEASURE THE RESISTANCE BETWEEN BOTH PRONGS OF THE AC PLUG AND ALL EXPOSED METAL PARTS TO BE SURE IT EXCEEDS 2.2 MEGOHMS (POWER SWITCH IF ANY SHOULD BE IN ITS POSITION). IF THE RESISTANCE MEASURED IS LESS THAN 2.2 MEGOHMS, THE UNIT SHOULD NOT BE RETURNED TO THE CUSTOMER UNTIL THE CAUSE FOR THE REDUCED POWER LINE TO EXPOSED METAL PARTS RESISTANCE HAS BEEN CORRECTED AND THE UNIT PASSES THE ABOVE TEST.

⚠ THIS MARK INDICATES THAT THE ADJACENT COMPONENT IS CONSIDERED CRITICAL WITH RESPECT TO THE RISK OF FIRE AND ELECTRICAL SHOCK ASSOCIATED WITH THIS PRODUCT. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY PARTS SUPPLIED BY MANUFACTURER WHOSE PART NUMBERS ARE INDICATED ON THE PARTS LIST ATTACHED.



SERVICING INSTRUCTIONS

- 4. DISCONNECT POWER CORD BEFORE SERVICING.
- 5. REPLACE CRITICAL COMPONENTS  ONLY WITH FACTORY PARTS OR RECOMMENDED EQUIVALENTS.
- 6. FOR AC LINE POWERED UNITS - BEFORE RETURNING UNPAID UNIT TO USER, USE AN OMMETER TO MEASURE FROM BOTH AC PLUG BLADES TO ALL EXPOSED METALLIC PARTS. THE RESISTANCE SHOULD BE MORE THAN 100,000 OHMS.

